



## Vibration Analysis App

### *WiSER™ Vibe Pro*



### *User Manual*

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# Introduction

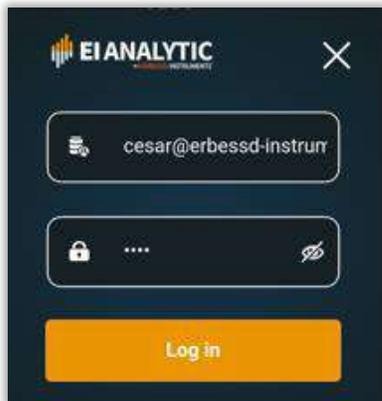
WiSER™ Vibe Pro is a practical and complete vibration analysis app, with which we can diagnose and implement predictive maintenance plans on rotating machines. In the following document we will describe the tools contained in the application and how they work. For more information contact the [Erbessd Instruments® Technical Support team](#).

In general, the application has 6 sections:



# 1 Log in to EI-Analytic™

To connect to your EI-Analytic™ account from WiSER™ Vibe Pro, you need to select the central button.

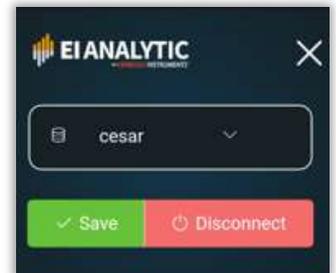
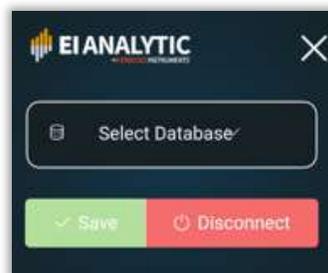


To log in your account, type your user and password.

Press  to log in.

If you have more than one database, choose which one to load. Click on  to load it, or

 to log out of your account.

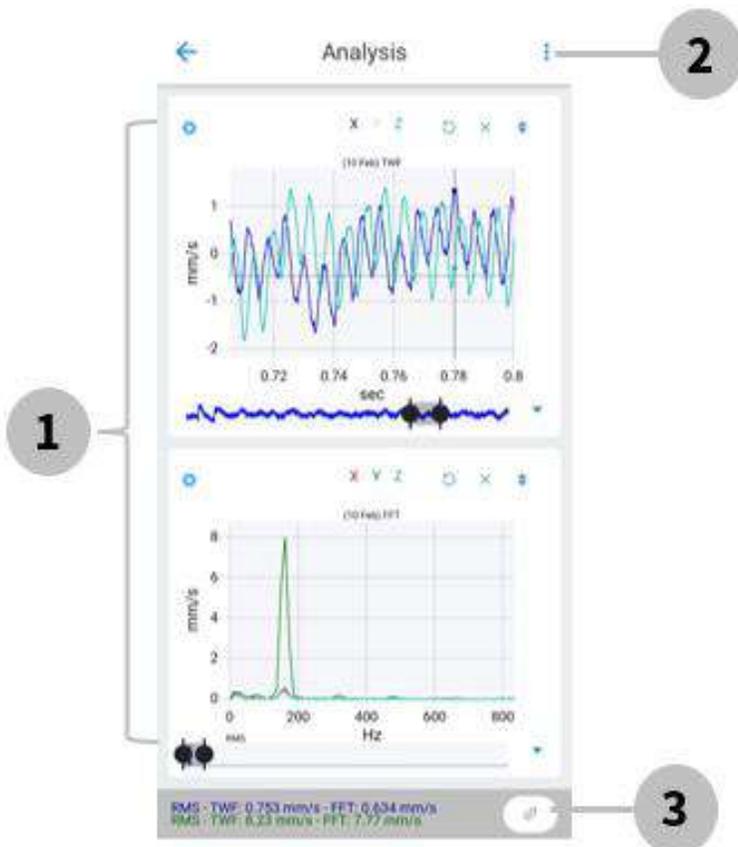


When you have successfully logged in to your account, the central button on the main screen will show a green border, confirming that you are logged in to EI-Analytic™.



## 2 Analysis Window

In the **analysis** section are several useful tools to work with your vibration data. Use the marked button to access this section.



The analysis window is displayed, where you will find...

1. The Time Wave Form (*TWF*) and the *Fast Fourier Transform (FFT)*.
2. The *analysis options*.
3. The *connection manager* shortcut.

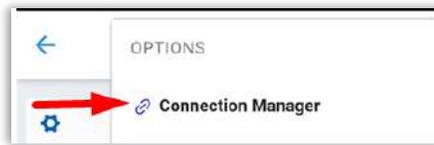
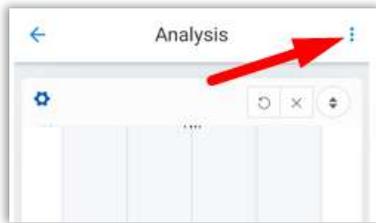
## 2.1 Connection Manager

The connection manager allows you to connect to a triaxial wireless accelerometer like the *Phantom™* or the *WiSER™ 3x*.

You can also access through the main screen, selecting the button



on the bottom right corner.



Or through the analysis options, as shown in section: [Analysis Options](#)

On the connection manager, we see four options:

**1. WiSER™ (Wifi):**



**2. Bluetooth Devices:**



**3. Bluetooth devices setup:**

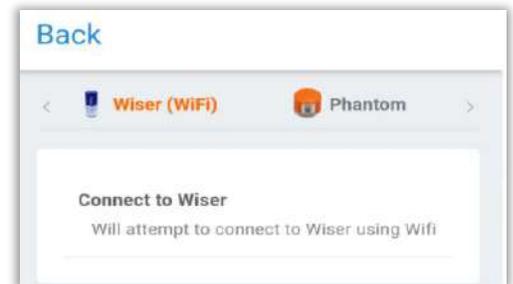


**4. Generator:**



### 2.1.1 Option 1: WiSER™ 3x

Click on **Connect to Wisser** in order to connect the mobile to the *WiSER™ 3x* generated Wi-fi network.



When we connect, we'll have the following options:



#### Connected to WiSER™ 3X

- **Disconnect:** It will disconnect from the *WiSER™ 3x*.

## Resolution

*Lines of resolution:*

- **Select Recording Time:** Change the recording type to *recording time*.
- **Mode:** Choose between 3 axis (triaxial) or 1 axis (single axis) recording. (With single axis, choose which axis to record (x, y or z)).
- **Lines of resolution:** Set the number of resolution lines that will be used on the recording.
- **Interval:** Time for each refresh data during recording.

*Recording Time:*

- **Select Resolution Lines:** Change the recording mode from recording time to **Lines of resolution**.
- **Mode:** Choose between 3 axis (triaxial) or 1 axis (single axis) recording.
- **Recording time:** Set the recording time (this will show the resolution lines and the max frequency on the set time).
- **Infinite recording:** Will not stop until the users stop manually (max 1000 secs).
- **Hold data:** Will temporarily store data to view all the end.
- **Interval:** Time for each refresh data during recording.

## Extras

- **Reference:** Use reference as extra channel.
- **Record Reference only:** Will only record from the external connection channel.

*Lines of resolution:*

**Resolution**

**Select Recording Time**  
switches to recording time instead

**Mode**    
channel mode

**Lines of resolution**    
Res: 1.46 Hz - Time: 0.683 secs

**Interval**    
time for each refresh data during recording.

*Recording Time:*

**Resolution**

**Select Resolution Lines**  
switches back to resolution lines

**Mode**    
channel mode

**Recording Time (secs)**     
RL: 25600 - Res: 0.366 Hz

**Infinite Recording**   
will not stop until the user stops manually  
(Max: 1000 secs)

**Hold data**   
will temporarily store data to view all at the end

**Interval**    
time for each refresh data during recording.

**Extras**

**Reference**   
use reference as extra channel

**Record Reference only**   
Will record only from the external connector channel.

## Sync Averaging

- **Synchronous averages:** Number of averages to be made.
- **Sync to frequency (Hz):** By default, the 1X detected in its last recording is selected

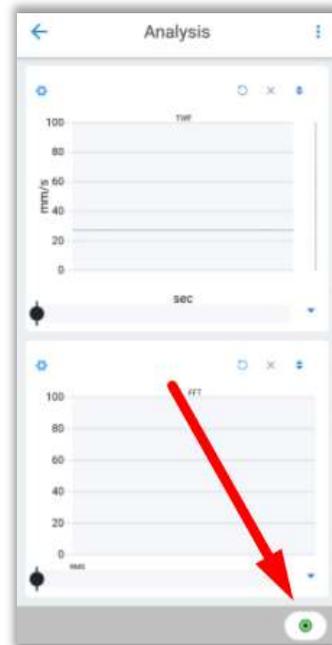


Once you have finished configuring your WiSER™ 3X, click on



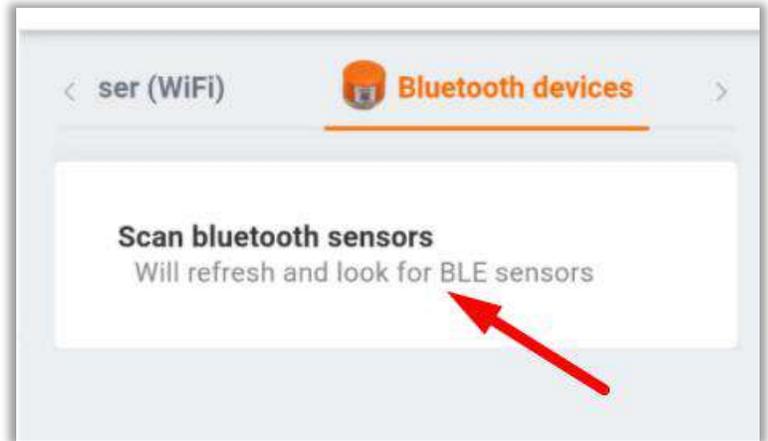
to return to the analysis main screen.

The button , confirms that we are connected, click on it to record data.

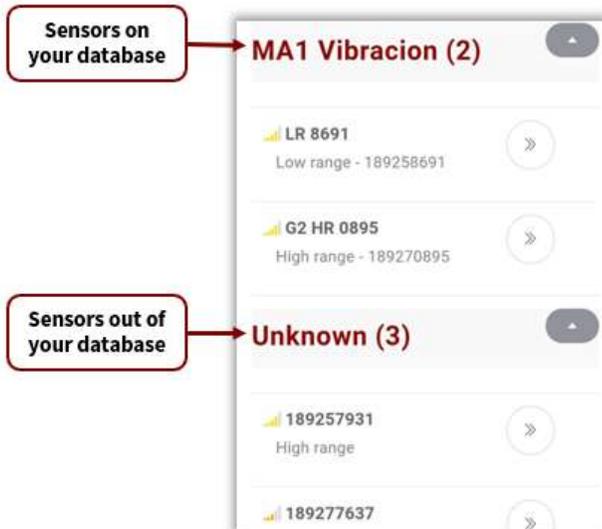


## 2.1.2 Option 2: Bluetooth devices™

Click on "**Scan Bluetooth sensors**" to scan for nearby Phantom™ sensors (you need to activate Bluetooth on your device).



Detected bluetooth sensors, such as the phantom™ or WiSER™ 3x Mini, will be displayed.



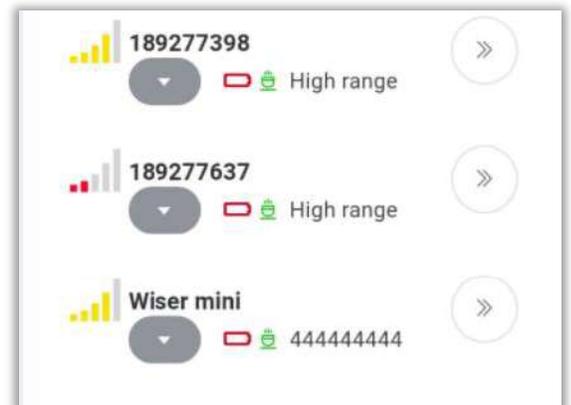
The detected Phantom™ sensors will be displayed. You will see the sensors registered in the database under the name of the machine to which they are configured. Note: it is necessary to use the "**Download phantom info**" tool

- **Machine name:** *MA 1 Vibracion*
- **Sensors name's:** *LR 8691 & G2 HR 0895*

Hide the sections with  and expand them with .

For each device you will observe the signal strength , and the battery level .

For the **Phantom™** sensors you will see the name or serial number, for the WiSER™ 3x mini, you will see "**Wiser mini**".

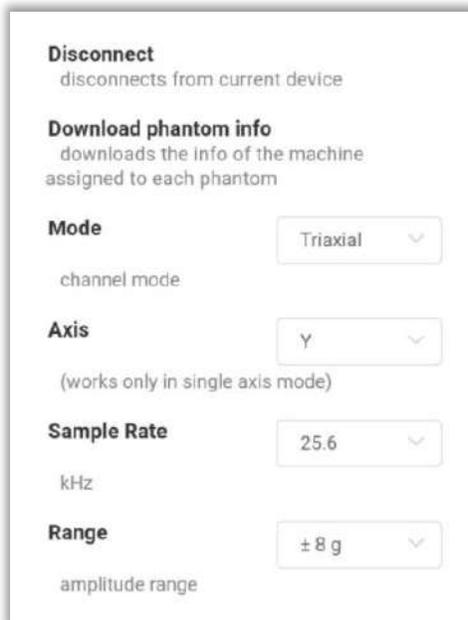
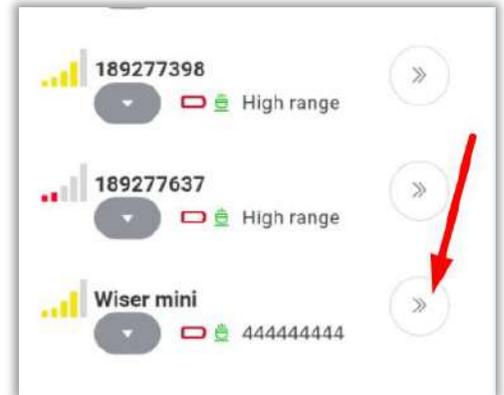




Select  to observe the battery level , internal temperature  and rms values of the x, y & z axis.

Choose the sensor you want to connect to and click on .

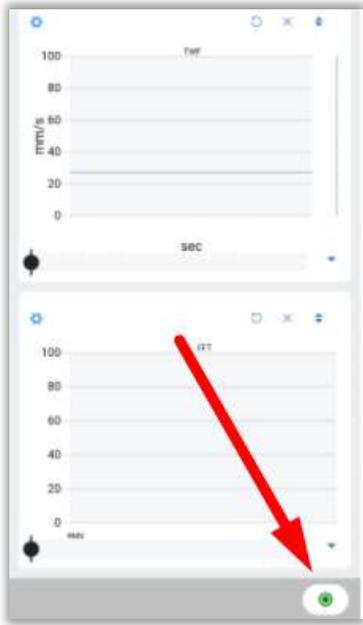
Once connected, you will see the bluetooth sensor settings:



- **Disconnect:** Disconnects from device.
- **Download phantom info:** Download the machine information assigned to each Phantom™.
- **Mode:** Choose to record 3 axis (triaxial) or 1 axis (single axis).
- **Axis:** If you select the single axis mode, you can choose which axis to measure (x, y or z).
- **Sample rate:** Select the sample rate in kHz.
- **Range:** Choose the amplitude range (may change depending on the sensor type).

Select  to return to the analysis screen.



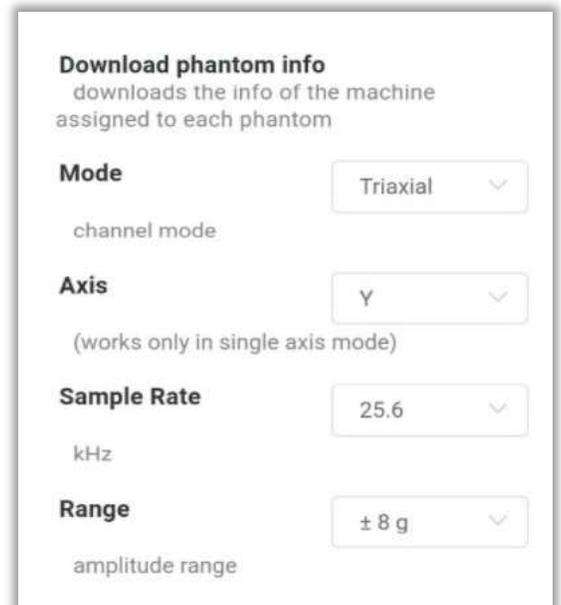


In the analysis tab, the button  confirms that you are connected, click on it to save data.

### 2.1.3 Bluetooth Devices Setup

In this menu you can pre-configure the bluetooth sensors. That is, in this screen you can choose the default settings of the bluetooth devices. With this feature, every time you connect to a phantom™ or a WiSER™ 3X Mini, it will start with these settings.

- **Download phantom info:** Download the machine information assigned to each phantom™.
- **Mode:** Choose to record 3 axes (triaxial) or 1 axis (single axis).
- **Axis:** If you select the single axis mode, you can choose which axis to measure (x, y or z).
- **Sample rate:** Selects the sampling rate in kHz.
- **Range:** Choose the amplitude range (may change depending on the sensor type).



## 2.1.4 Signal Generator

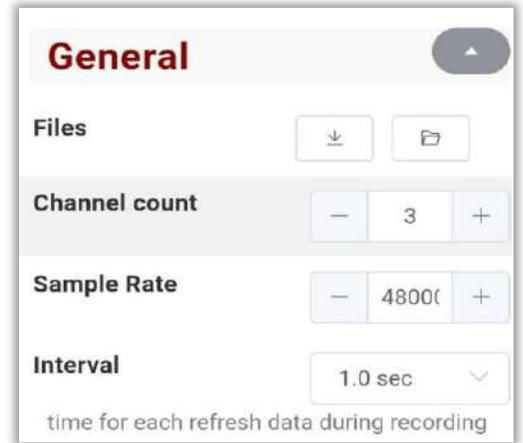
This section allows you to generate a signal for didactic purposes. You can customize the signal according to your needs. Use the button  to drop down the options of each section, and  to hide them.

### General

- **Files:** You can use  to save the signal on the device.

Click  to select and open one of the previously saved signals.

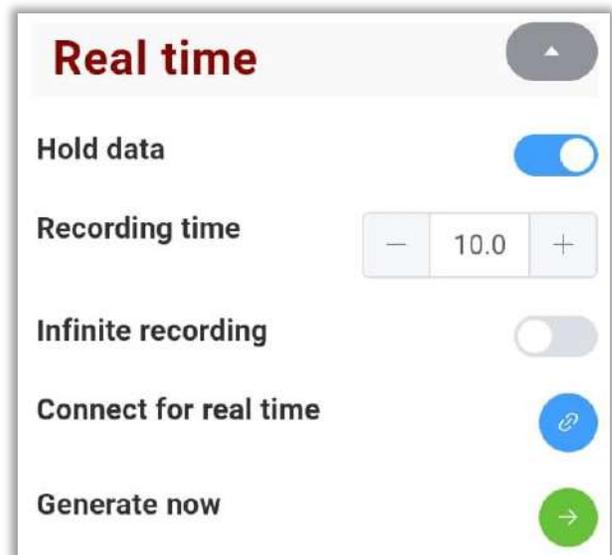
- **Channel Count:** Choose the number of channels you want in the signal (maximum 4).
- **Sample rate:** Select the sampling rate.
- **Interval:** Selects the refresh time for each data during recording.



### Real Time

- **Hold data:** Stores the data to display the complete signal.
- **Recording time:** Selects the recording time in seconds.
- **Infinite recording:** Generates a signal without a time limit, you must stop the recording manually.
- **Connect for real time:** Simulates a real time recording in the analysis window with 

- **Generate now:** Press  to open the analysis tab with the generated signal.



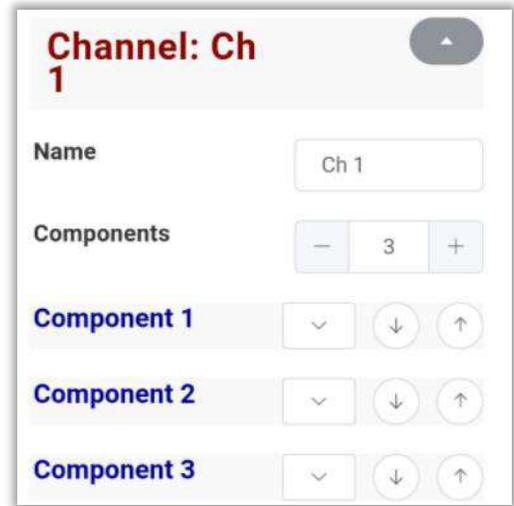
#### NOTE:

Active   
Inactive 



At the bottom, you will see the previously added channels. For example, in this signal we added three channels. For each channel you will see the following options:

- **Name:** You can customize the name of the channel by clicking in the box and typing the name of your choice.
- **Components:** Each channel can have several components, each with different options. Choose the number of components that confirm the signal.



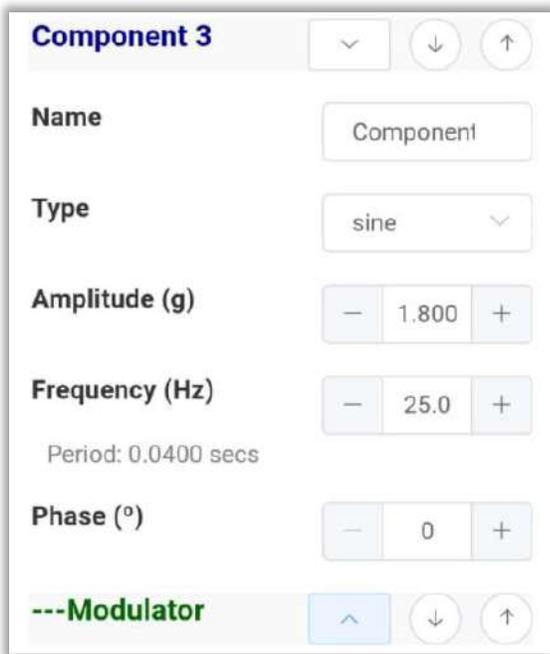
### Component

In this section you will see the components of the signal you added in the previous box.

You can change the order of the components, by clicking  to move the component up one position or  to move it down one position. For example, moving **component 3** up two positions:



Click  to display the options for each component. The options are as follows:



- **Name:** You can choose the name of the component: click in the box to type the new name.
- **Type:** Selects the type of component signal: sinusoidal or rectangular, for example.
- **Amplitude (g):** Select the amplitude value in g's.
- **Frequency (Hz):** Choose the frequency of the component signal in Hz. Below it will show you the period in seconds depending on the frequency you choose.
- **Phase (°):** Selects the phase angle of the signal.

### --Modulator

In this section you can add a modulating signal to the component of your choice. Click on  to display the modulator options, which are as follows.

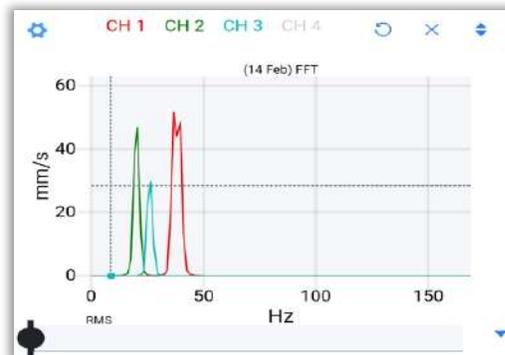
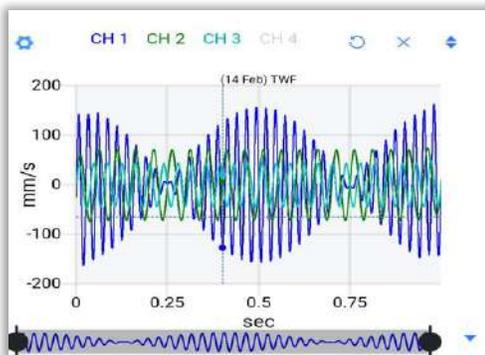
--**Type:** Select the type of signal: sinusoidal or rectangular, for example

--**Amplitude (g):** Select the amplitude value in g's.

--**Frequency (Hz):** Choose the frequency of the component signal in Hz.

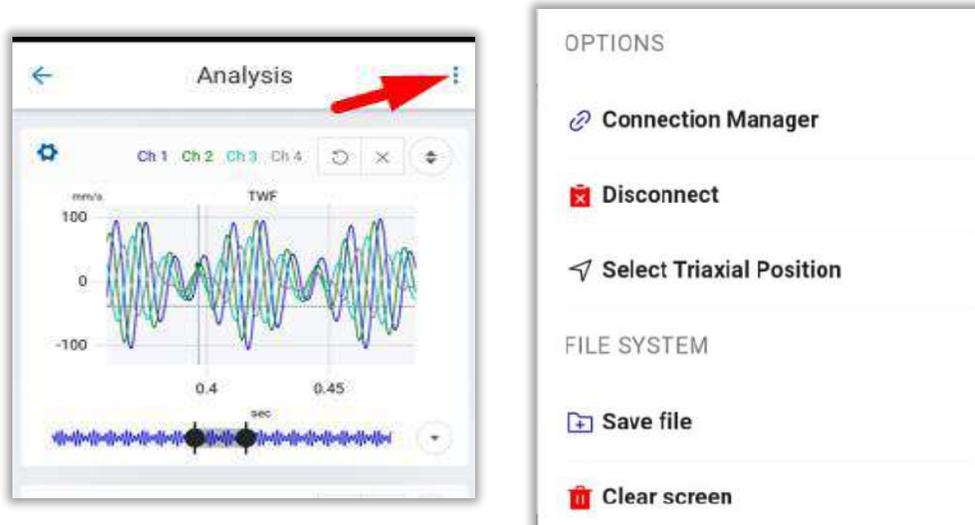


Once you open a signal, either a previously saved signal or one that you generate on the spot, you will see it in the analysis screen. Example:



## 2.2 Analysis Options

On the upper right corner, click on  to access to the analysis options. Here you'll find the next tools:



Donde:

 Connection Manager

**Connection Manager:** Will open the connection manager, with all the tools described on the section [Connection Manager](#).

 Disconnect

**Disconnect:** Will disconnect from the device that is being used.

 Select Triaxial Position

**Select Triaxial Position:** Select the position in which your triaxial sensor is located. Choose the option from the pop-up window:



 Save file

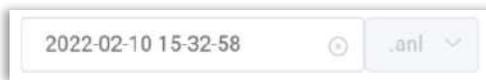
**Save File:** Allows you to save the recorded signal as an .ANL file.

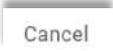
### Save file example:

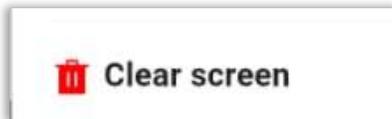
To save the signal in a folder, create a new one with , or choose a folder from those that have already been created:



Choose the file name below in:



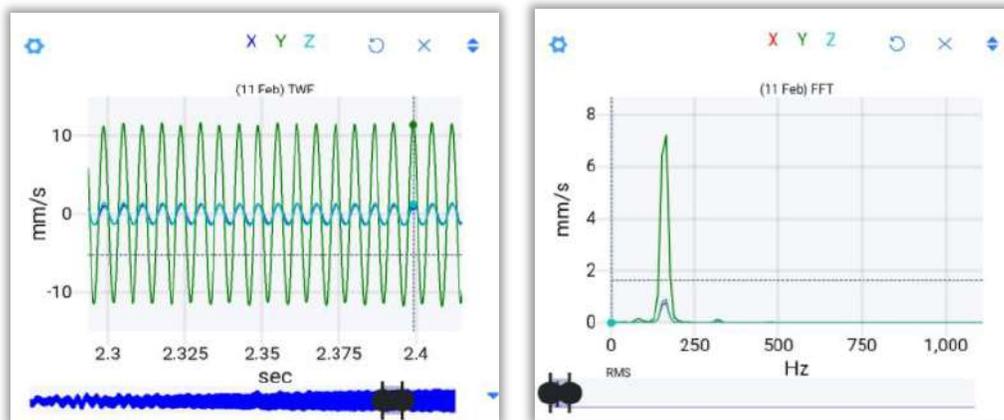
Click on  to save the signal, or  to cancel.



**Clear screen:** Removes any signals that are currently open in the analysis area, clearing the window.

## 2.3 Visualization tools

In the following image, we can see the *Time Wave Form* or *TWF*, and the *Fast Fourier Transform* or *FFT* of a vibration signal recorded in WiSER™ Vibe Pro:

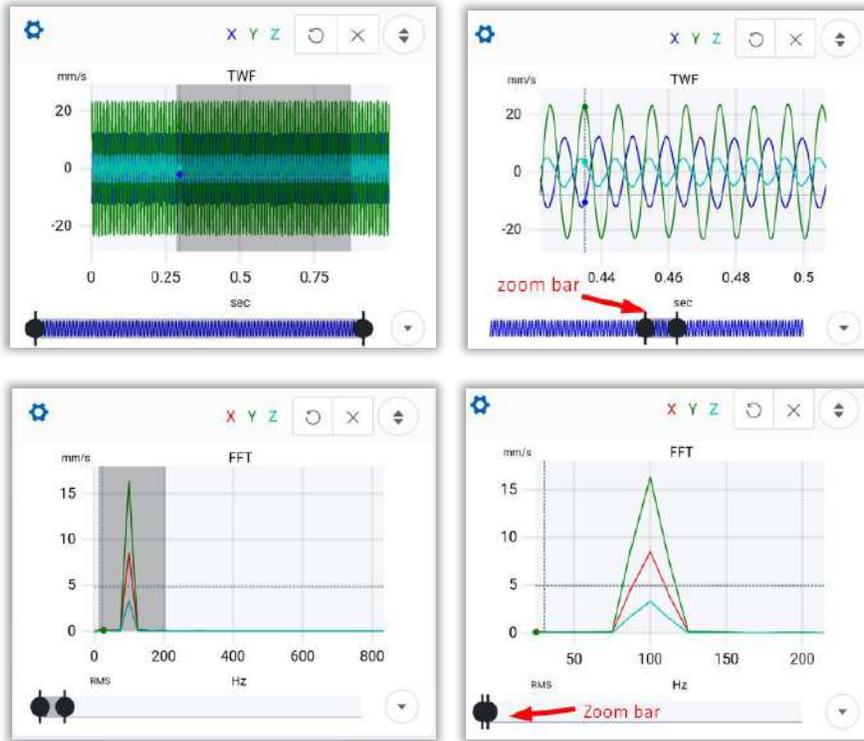


In this section we have several tools, which will be described below.

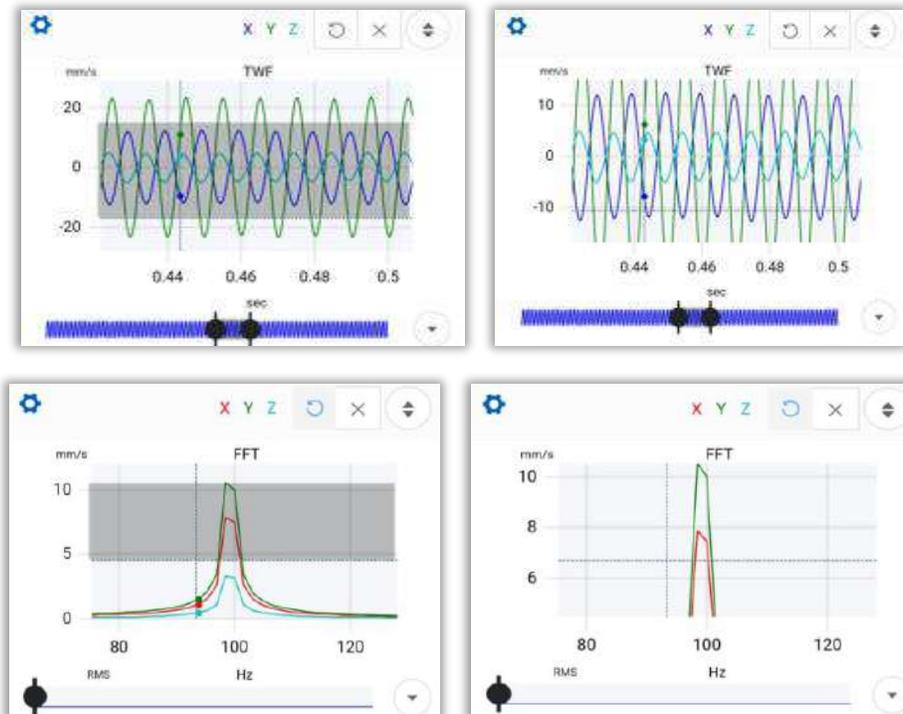
## Horizontal & Vertical Zoom

You can zoom horizontally or vertically by drawing with the cursor on the signal the area you want to observe. You can also use the zoom bar below the TWF and FFT to zoom horizontally on the graph, however you cannot use this bar to zoom vertically.

*Horizontal zoom:*

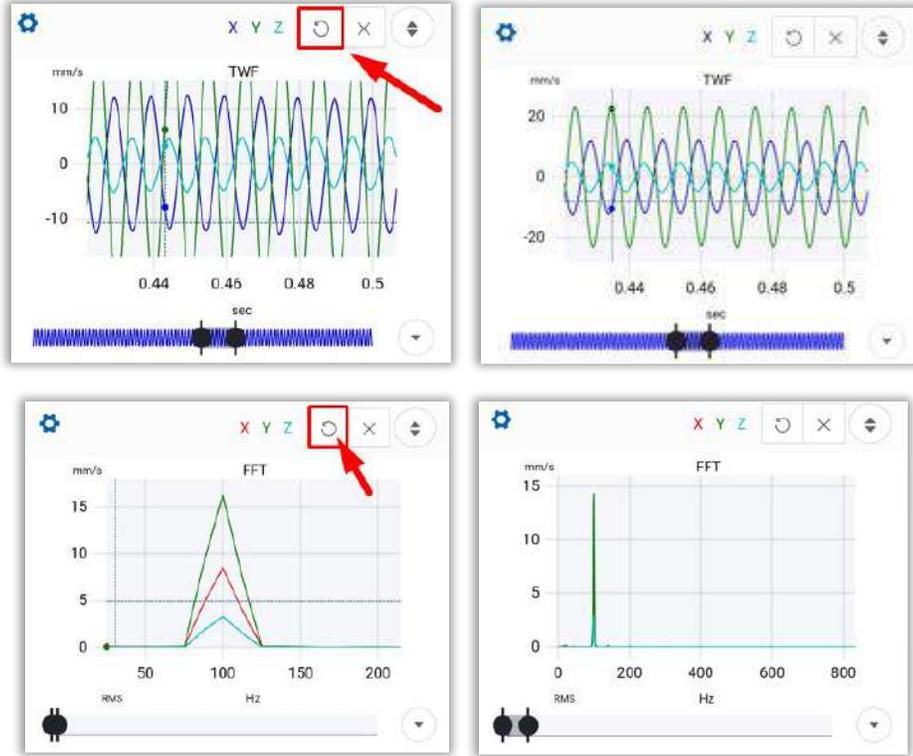


*Vertical zoom:*



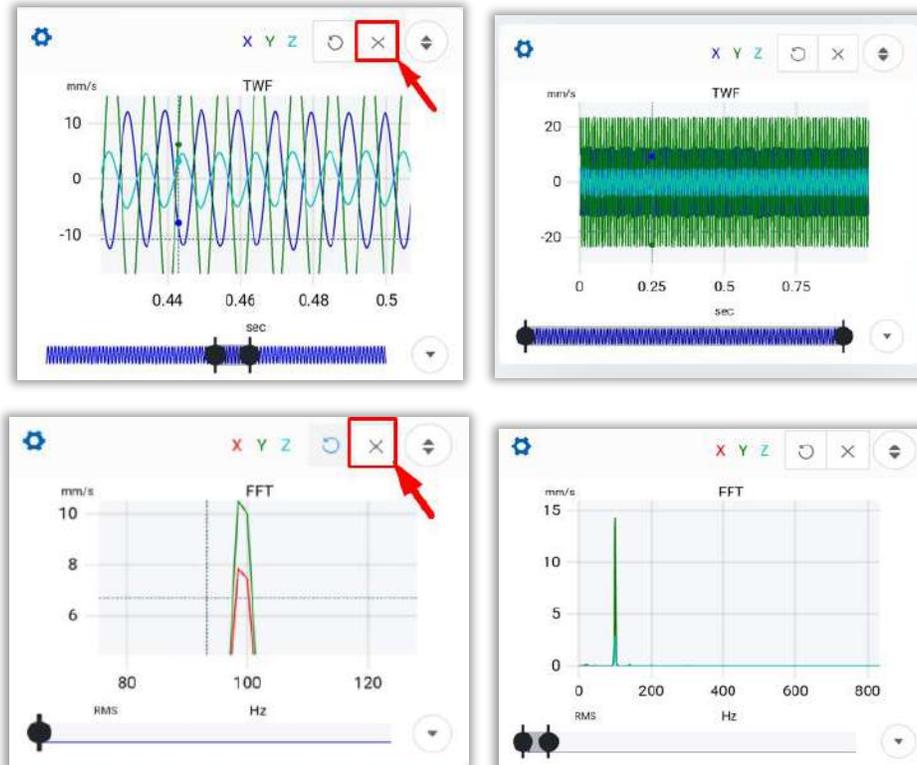
### Zoom out

This tool  deletes the last zoom that was made, vertical or horizontal.



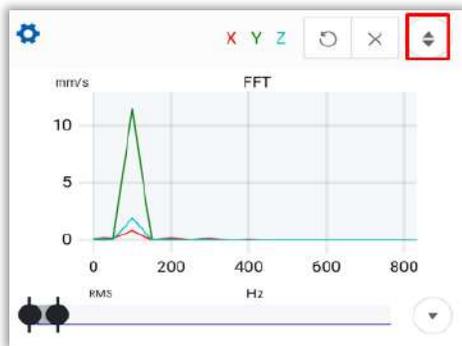
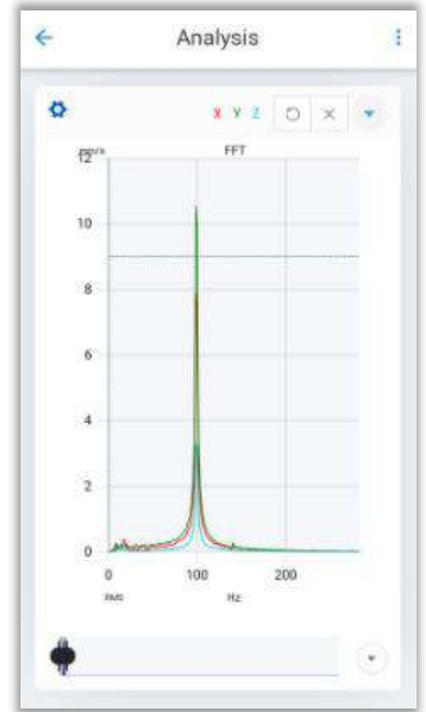
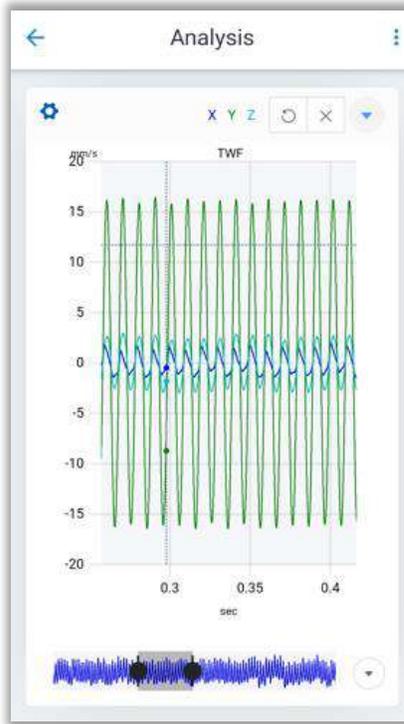
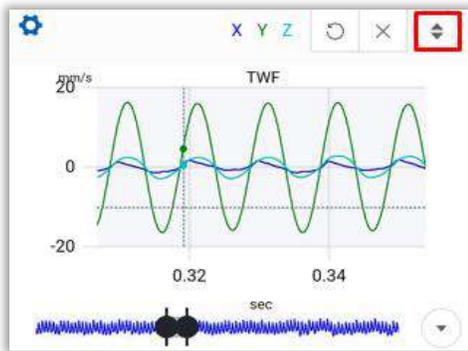
### Delete Zoom

With this tool , you can completely delete the zoom on the graphic, returning to the default zoom of the graph.

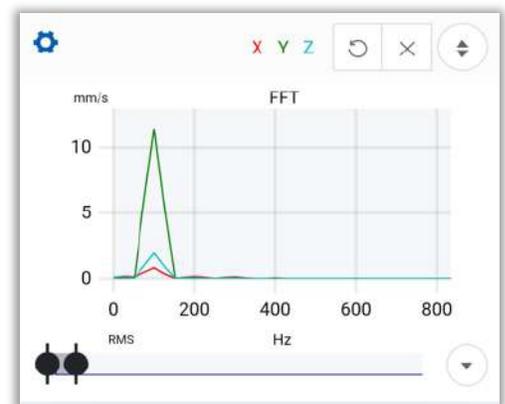
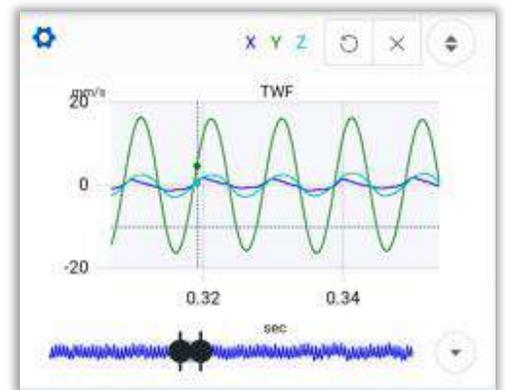
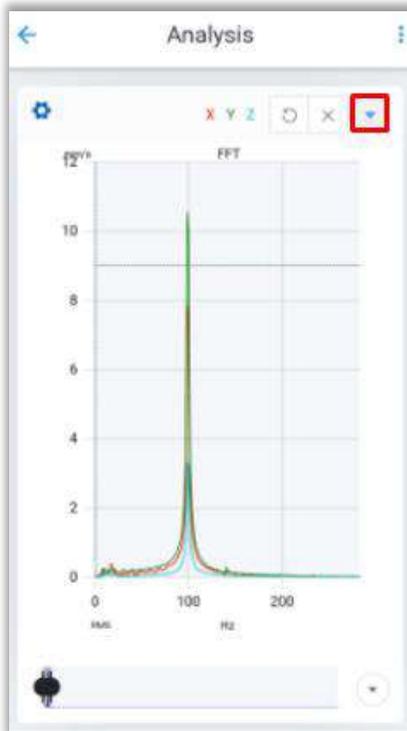
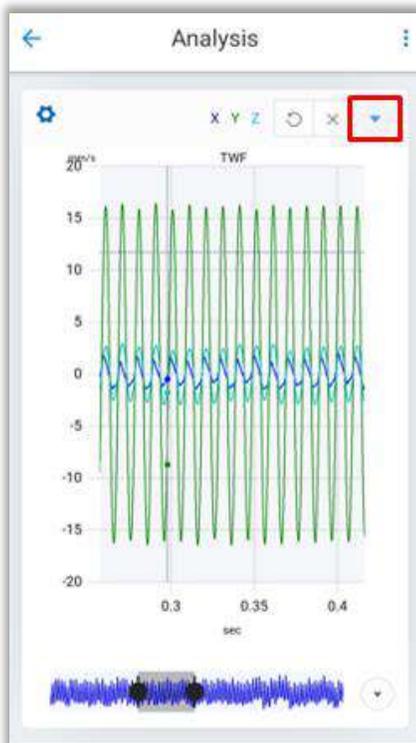


## Expand TWF & FFT

Click on  to make the TWF, or FFT graph fill the entire screen of the device.



Click on  to return the graphic to the original size.



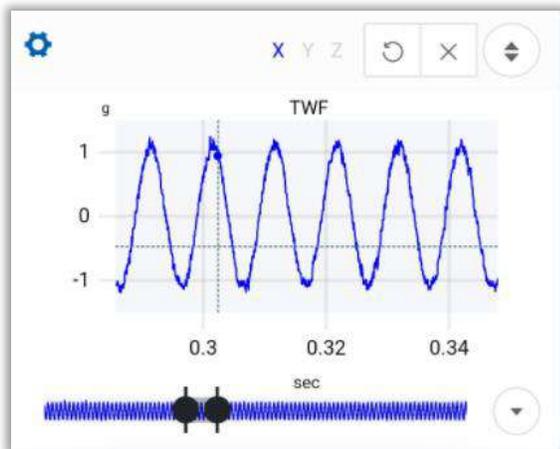
## Activate/Deactivate axes

In the TWF and the FFT, it is possible to activate and/or deactivate the axes (x, y & z), with the buttons **X Y Z** for the TWF and **X Y Z** for the FFT.

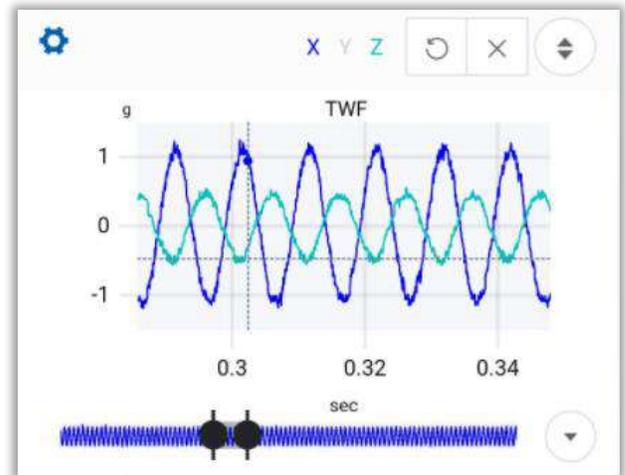


Example:

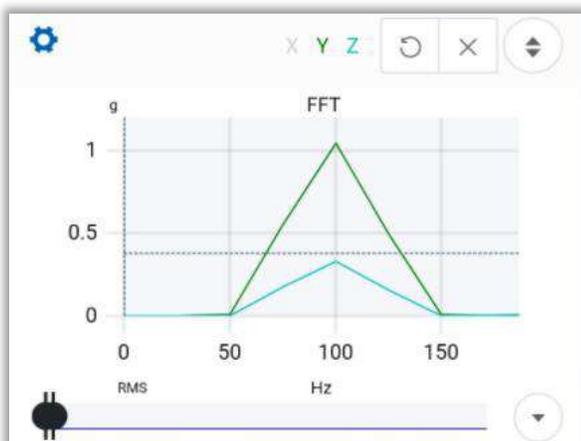
**TWF with X axis**



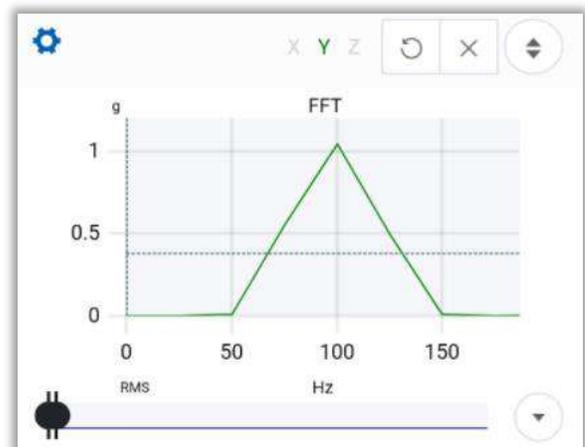
**TWF with X & Z axes**



**FFT with Y & Z axes**

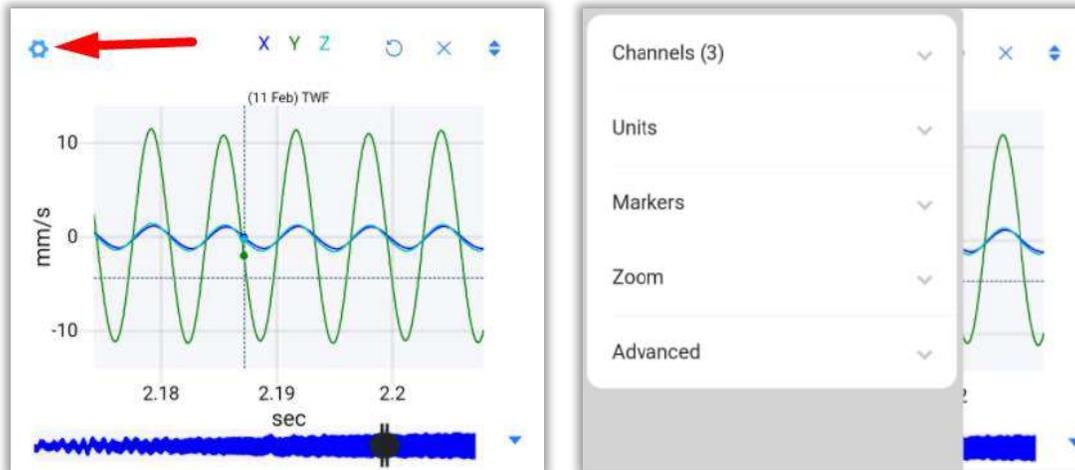


**FFT with Y axis**



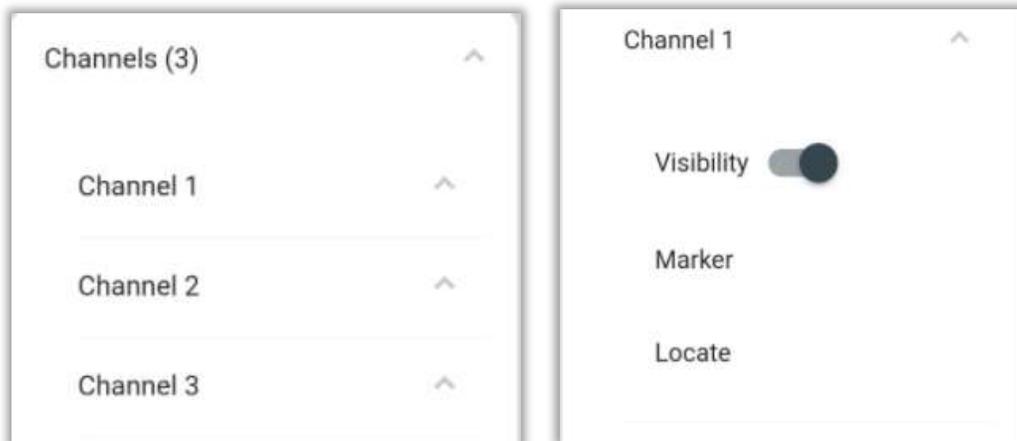
## 2.4 TWF Tools

On the upper left corner of the graph, the  button takes us to the TWF tools.



### 2.4.1 Channels

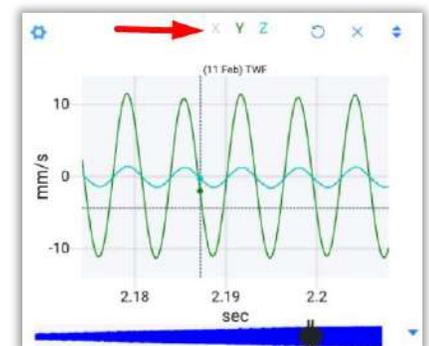
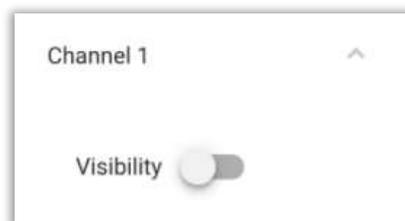
In this section we can choose between the three measured channels if we select the triaxial mode. For each channel we have 3 options: 1. *Visibility*, 2. *Marker* y 3. *Locate*.



#### *Visibility*

**Example.** Showing Channel 1 only:

This tool allows us to **activate/deactivate** a channel. If this tool is activated  the selected channel will be shown in the graph, if it is deactivated  then this channel will remain hidden.

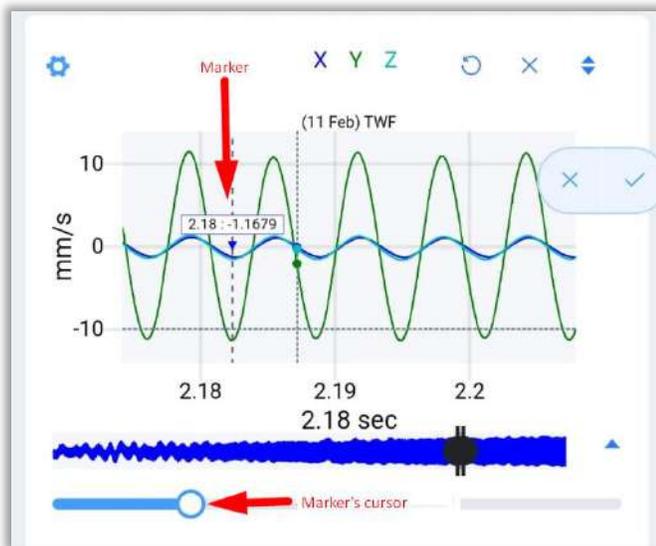
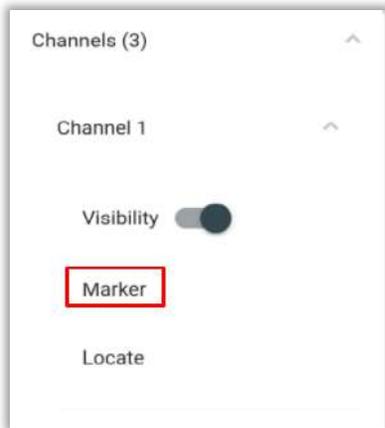


## Markers

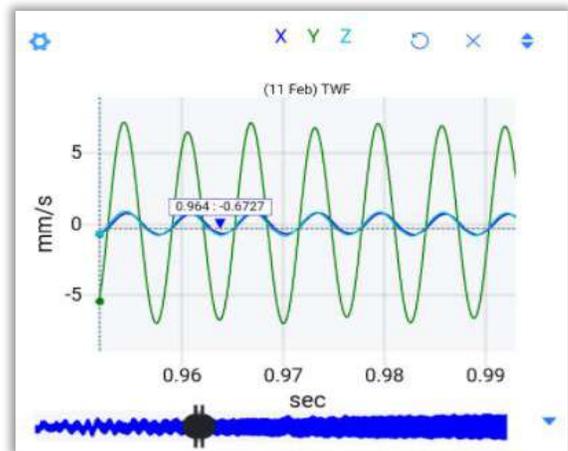
With this option, you can place a marker on the channel of your choice.

Use the **cursor** to place the marker on the graph or use the bar below to move the marker.

Click on  to draw the marker, or  to cancel.



*i.e: placed marker*



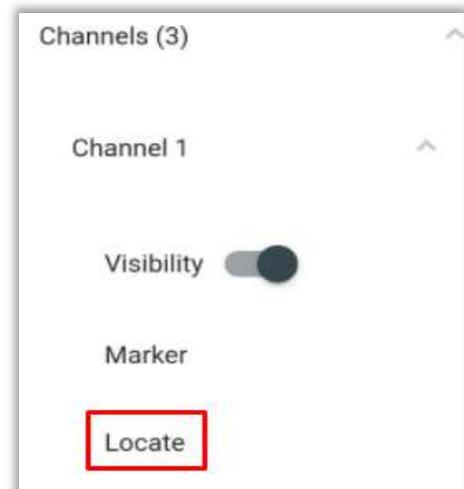
## Locate

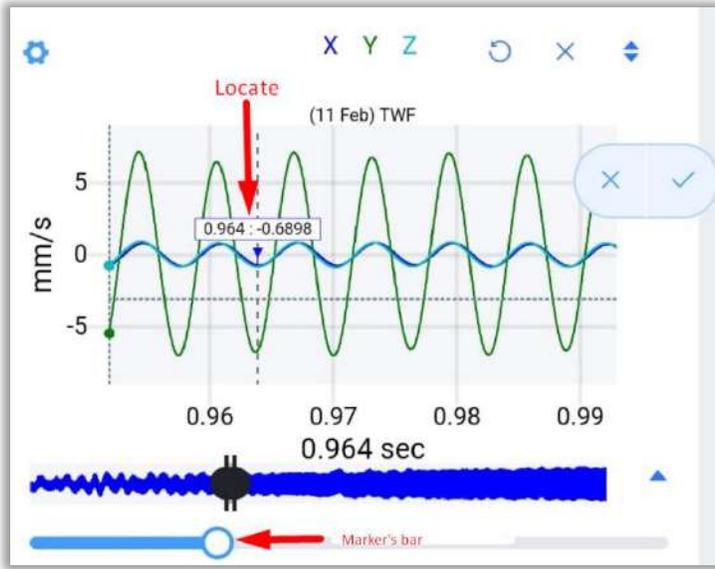
This feature works in the same way as a marker; however, it only allows you to place the marker on a measured point on the graph while markers can be placed between points.

When you move the cursor, it will automatically look for the nearest measured point.

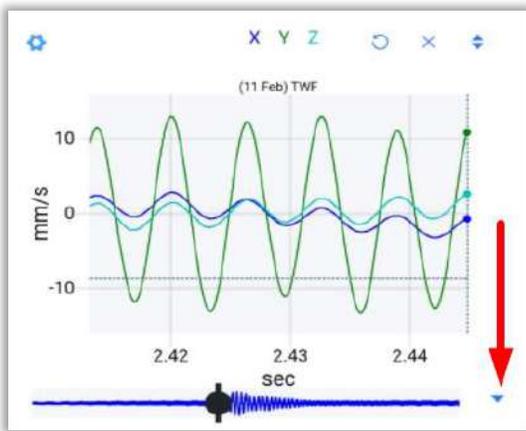
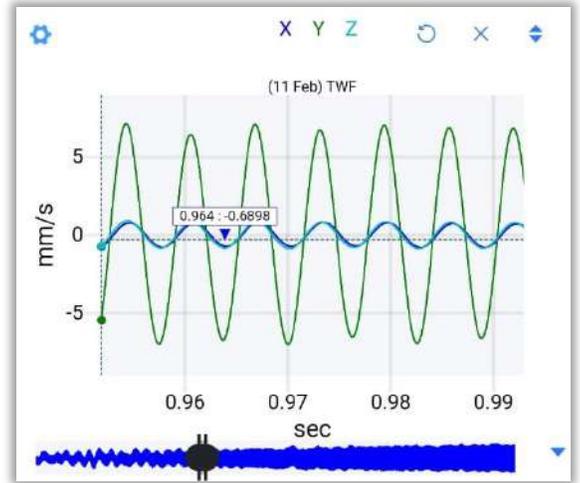
You can use the shortcut to this tool located in the lower right corner of the TWF graph.

Click on  to draw the marker, or  to cancel.





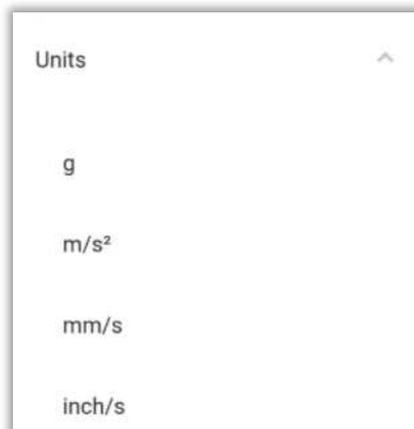
Example: Placed marker:



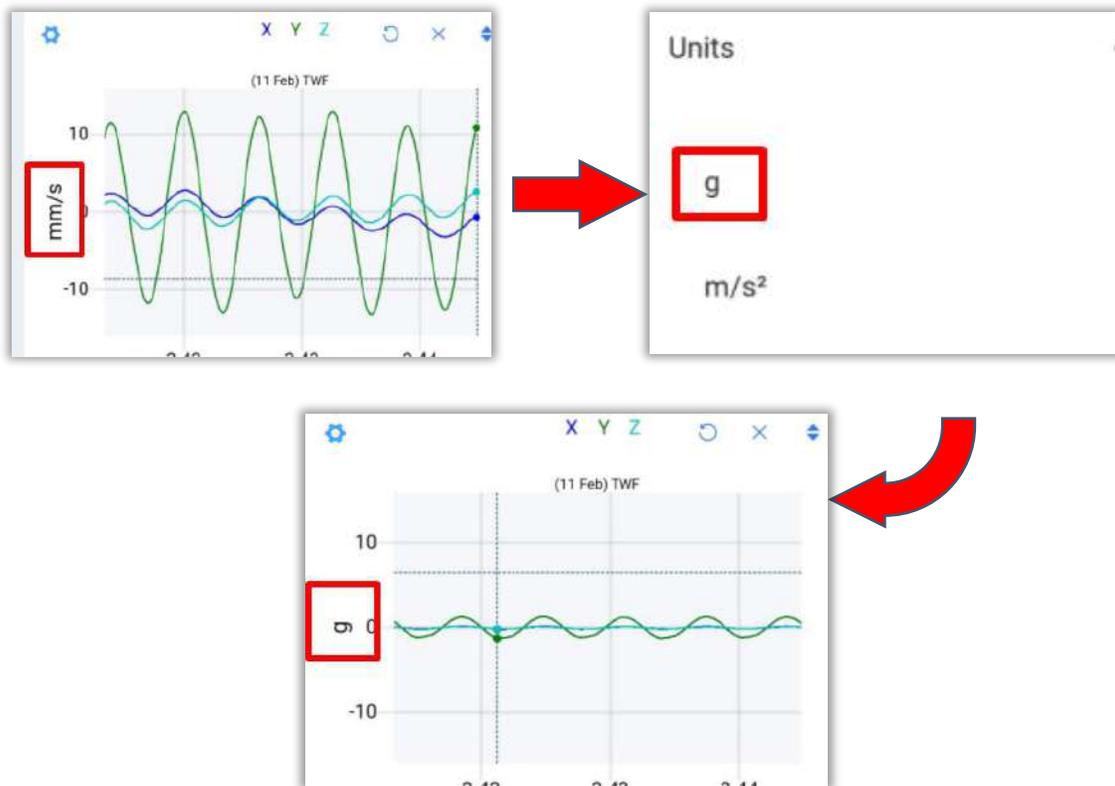
You can use the shortcut to this tool  located in the lower right corner of the TWF graph.

## 2.4.2 Units

The **units** tool allows you to change the units displayed on the y-axis of the TWF graph.

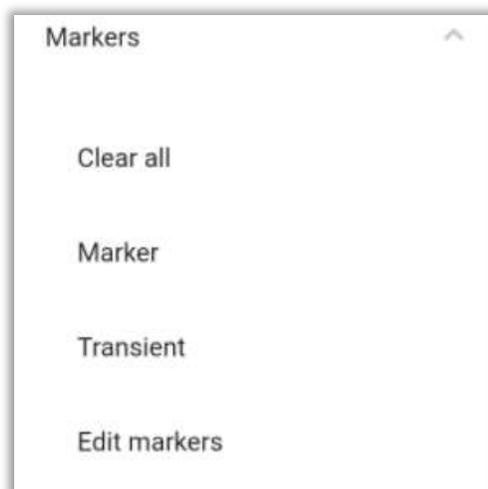


Example:



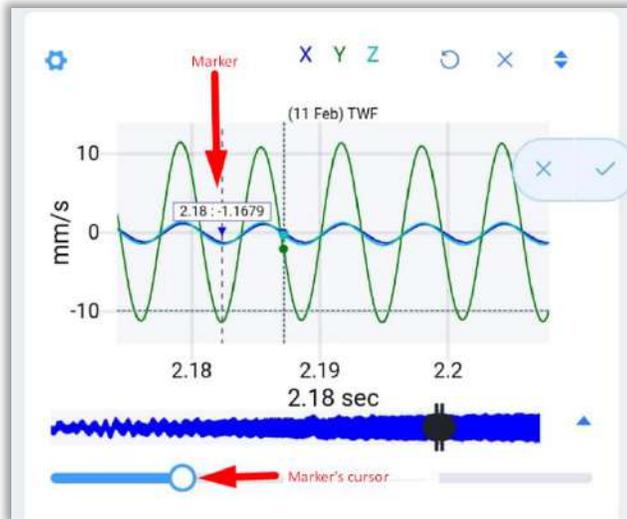
## 2.4.3 Markers

In the markers section there are four options.



The first option, **Clear all**, delete all markers previously added. The other tools are explained below.

## Marker

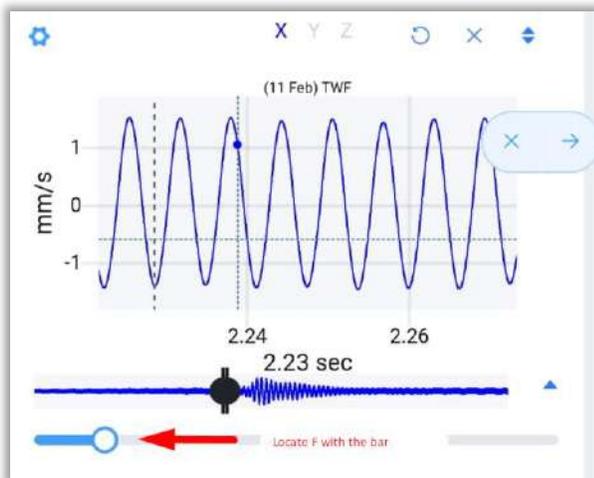


With this option, you can place a marker on the channel of your choice.

Use the cursor to place the marker on the graph or use the bar below to move the marker.

Click on  to draw the marker, or  to cancel.

## Transient

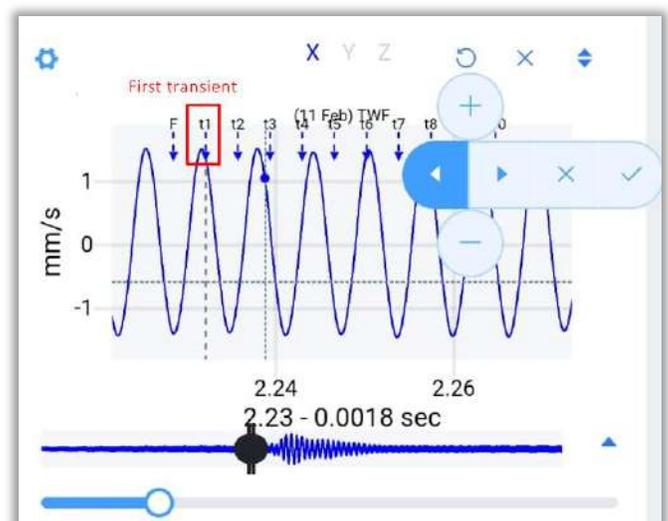


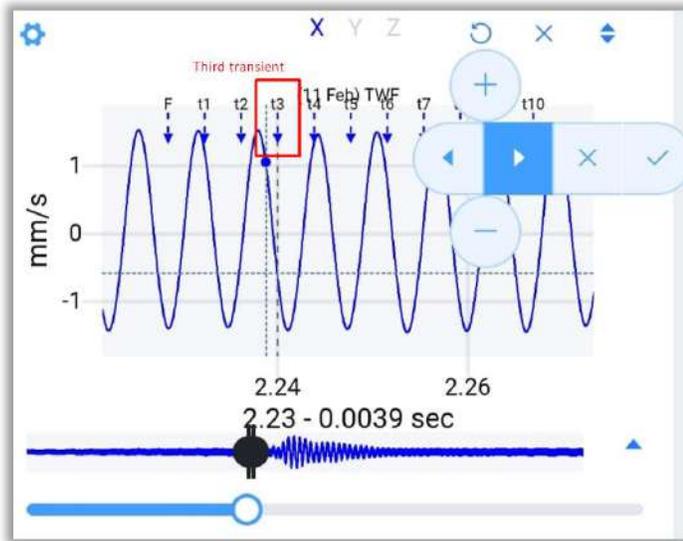
Draw transient points on the TWF.

First locate the fundamental frequency (**F**) on the TWF with the marker bar, and press  to confirm the position, or  to cancel.

Then move the first transient (**t1**) with the bottom bar. The rest of the transients will be placed equidistant to **t1** to the right, the distance between them is the same distance from **F** to **t1**.

Select   to add/remove a transient. Select  to cancel and  to confirm the process.





Click  to make your current position become the immediate right/left transient.

**Example:** In the image on the left, when you click twice on , the current position moves from **t1** to **t3**, if you move the bottom bar now, the third transient will move.

### Edit Markers

This tool allows you to edit any previously added marker.

On the **Text** column, you see the name of the marker, depending on the marker type.

On the **Freq** column, you can see in which frequency is the marker located.

Lastly, you can delete this marker with the button 

Text	Freq	
h1	5.86	
h2	11.7	
h3	17.6	
sb1	39.0	

Text	Freq
F	0.0744
t1	0.150

Please enter Text

Text

F

OK CANCEL

Text	Freq
F	0.0744
t1	0.150

Please enter Frequency

Frequency

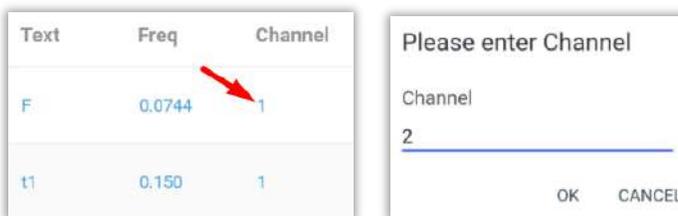
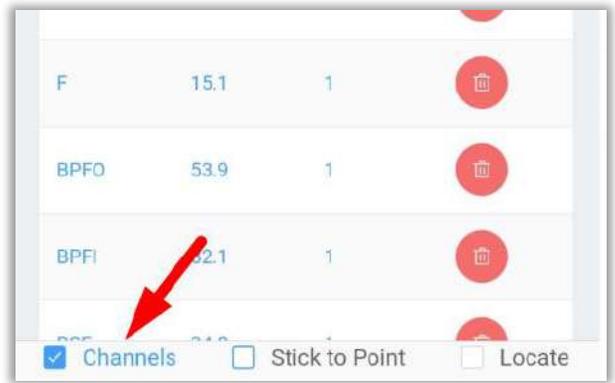
0.07440839583333334

OK CANCEL

You can click on the numerical value of the frequency and the name of a marker to modify it manually.

There are several useful tools on to bottom of the page.

Select  Channels to add a new column to the edit page.



In this column, we see which channel the marker is located on.

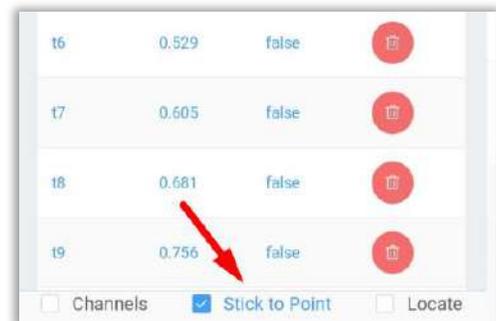
You can modify the channel manually by clicking on the numeric value of the channel.

Select  Stick to Point to add a new column to the edit window.

If the value in the column is **false** it means that the marker can be moved depending on the position in the graph.

If the value is **true** the marker will stay in the current position even if the other markers in its group are modified.

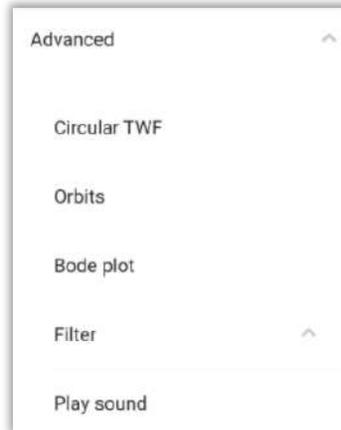
You can click on the value to change it



**NOTE:** This process works in the same way for the FFT markers that will be described below on the section: FFT tools: [Markers](#).

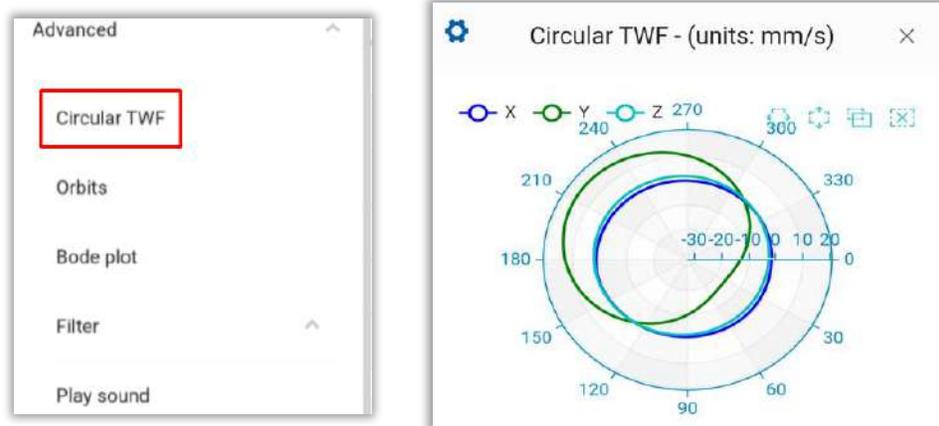
## 2.4.4 Advanced TWF tools

On the **advanced** section we have 4 options:



### 2.4.4.1 Circular TWF

The *Circular TWF*, is a very useful tool for vibration analysis, select this tool to display the graph at the bottom of the analysis screen. **NOTE: The units of the graph will be the same as those of the TWF.**

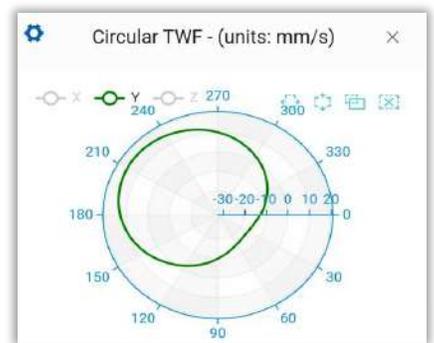
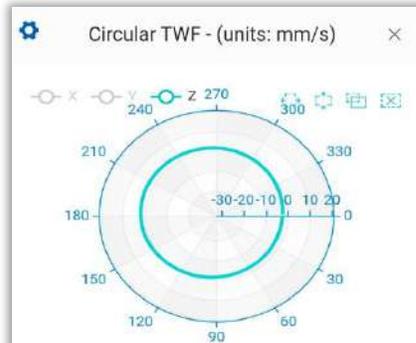
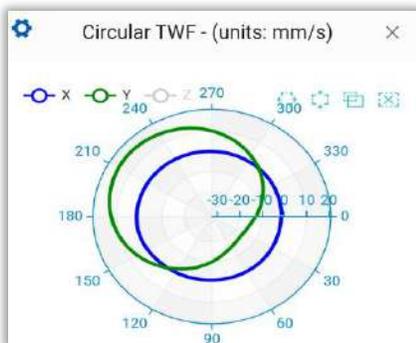


Just like in the TWF, you can activate/deactivate the axes on the graph, with the buttons:  X  Y  Z

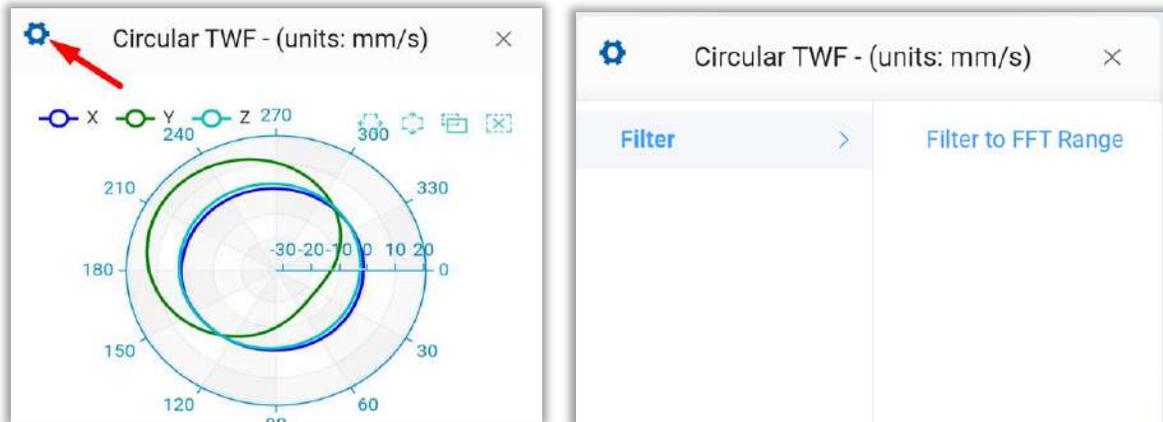
**X & Y**

**Z**

**Y**

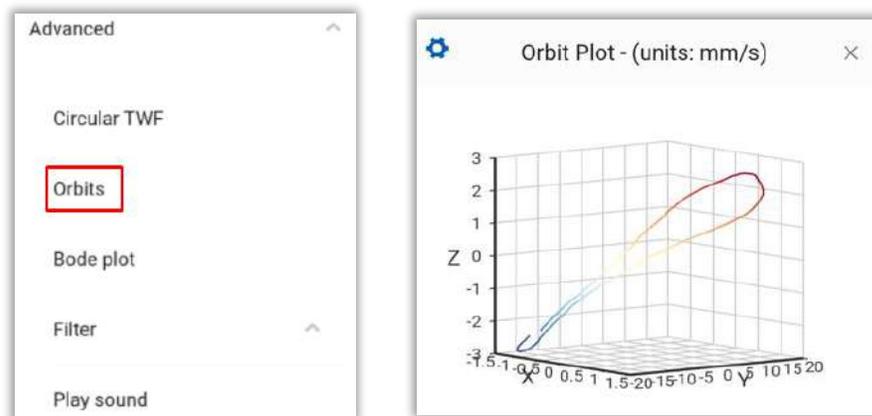


It is also possible to apply a filter so that the graph only uses data within the range used in the Fast Fourier Transform (FFT). Click on  and add the filter.

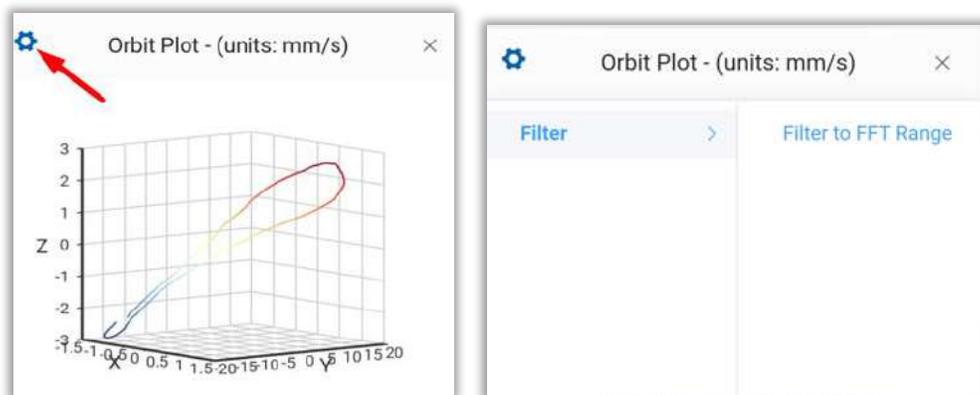


### 2.4.4.2 Orbits

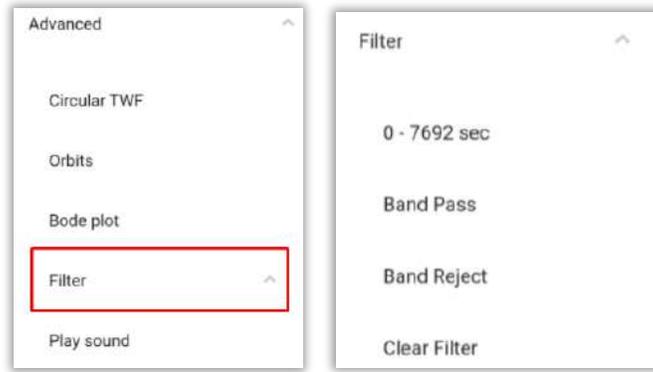
The **orbits graph** is a great tool for vibration analysis, select this tool to display the graph at the back of the analysis screen. **NOTE: The units of the graph will be the same as the TWF.**



In the Orbits plot, it is possible to apply a filter so that the plot only uses the data within the range used in the Fast Fourier Transform (FFT), click on  and apply the filter.



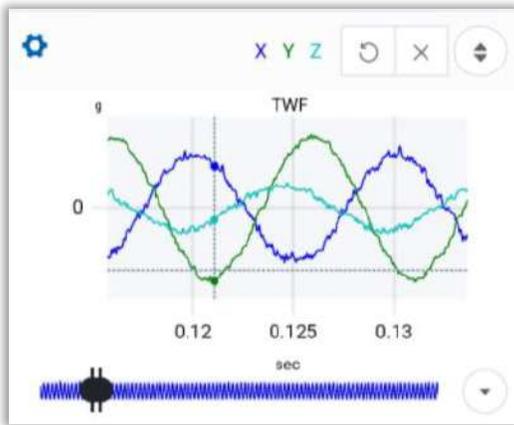
## Filter



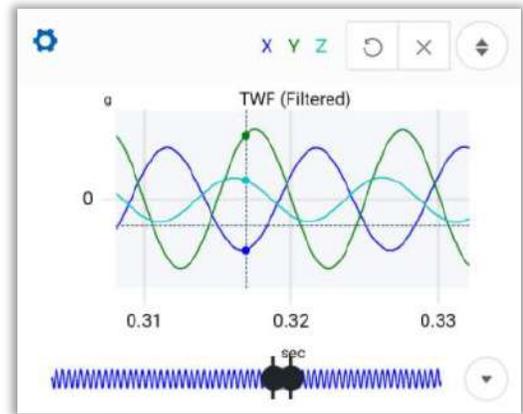
### Band Pass

Applies a band-pass filter to the signal. Example:

No filter



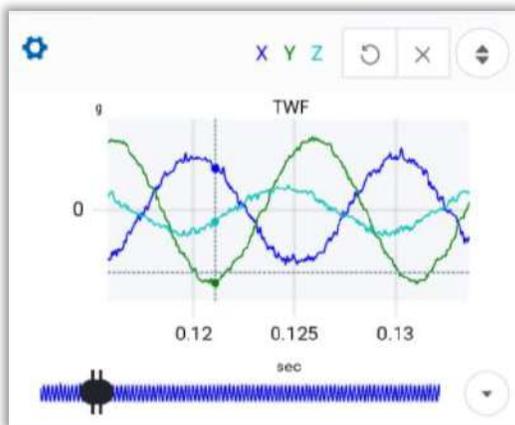
Filter



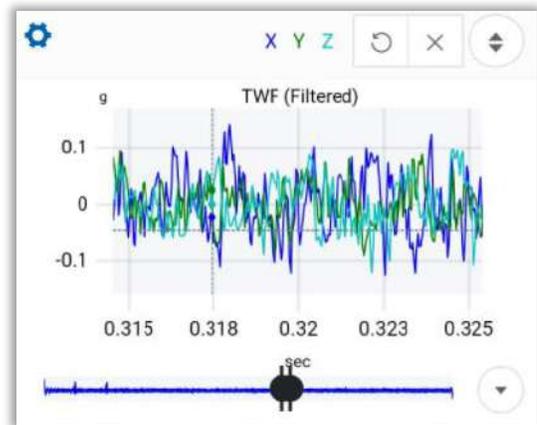
### Band Reject

Applies a band-stop filter to the signal, example:

No filter

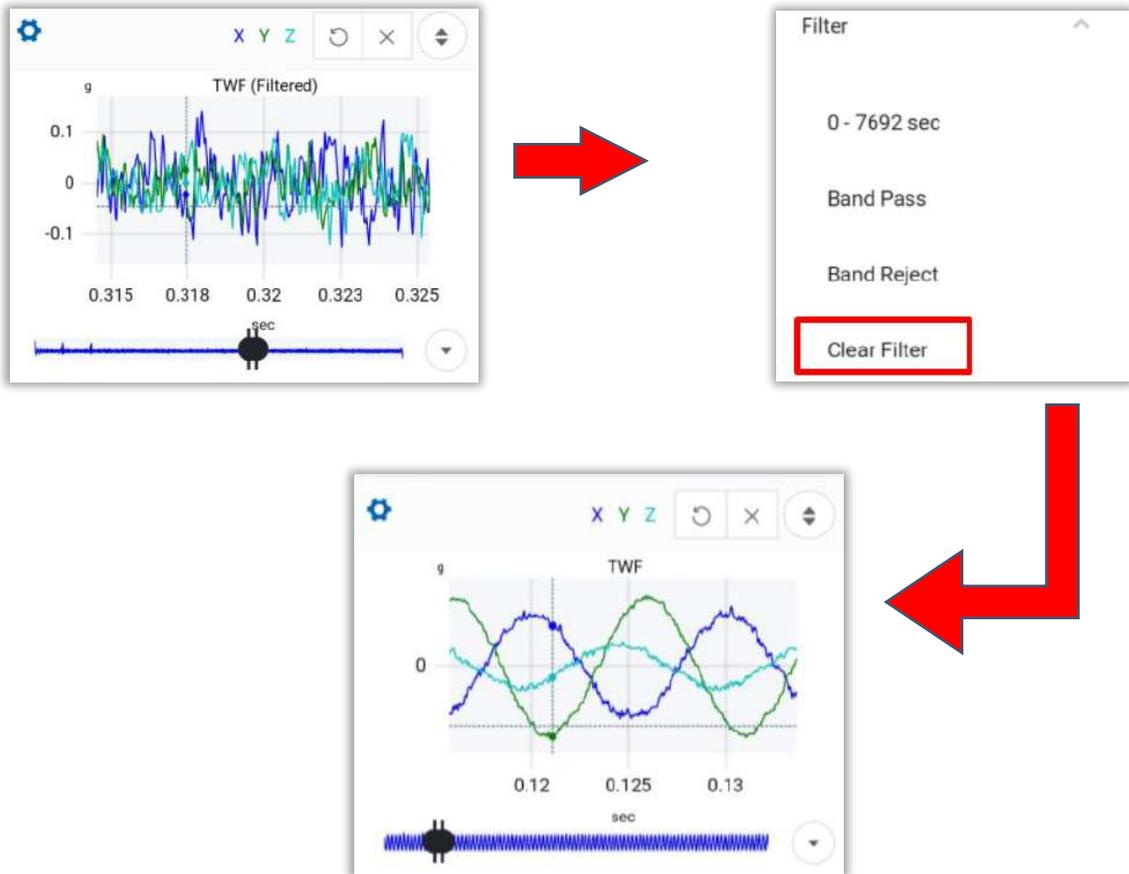


Filter



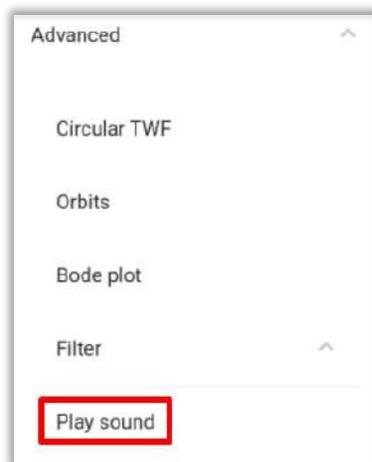
### Clear Filter

Removes any filters previously applied to the graph, returning it to its original form. Example:



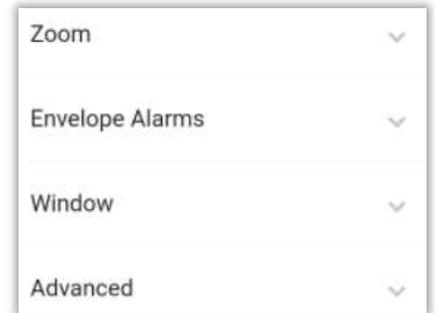
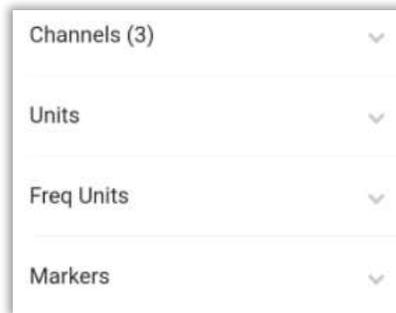
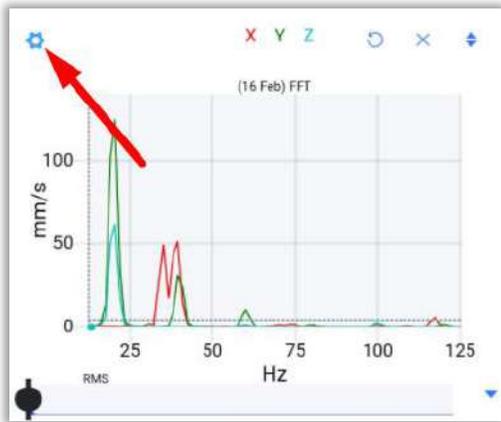
### Play sound

This tool will interpret the vibration as a sound and play it with the device's speaker. Click on [Play sound](#) to play it.



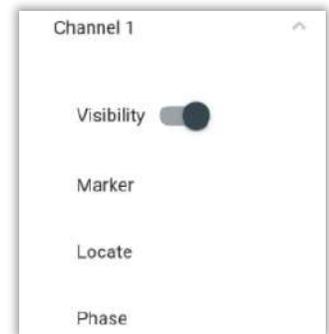
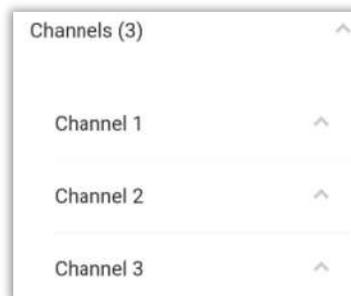
## 2.5 FFT Tools

Just like the TWF, in the upper left corner of the FFT graph, we find the FFT options by clicking on .



### 2.5.1 Channels

In the channels section, we have a total of 4 options:

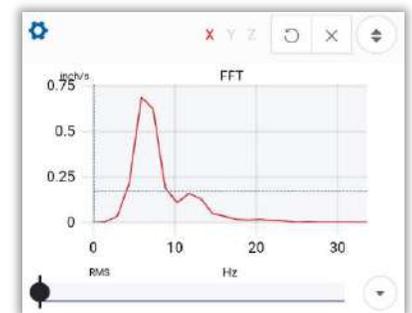


#### **Visibility**

*Example. Only showing channel 1.*

Allows us to activate/deactivate a channel. If this tool is activated the selected channel will be displayed on the graph.

Each channel corresponds to an axis.





### Markers

With this option, you can place a marker on the channel of your choice.

Use the cursor to place the marker anywhere on the graph or use the lower bar.

Select  to cancel and  to confirm and place the marker.

Place a marker on the channel of your choice, but only on one of the measured points.

Moving the cursor will automatically search for the nearest measured point.

Click on  to activate the tool and click again on  to deactivate it.

Select  to cancel and  to confirm and place the marker.

### Locate



### Phase

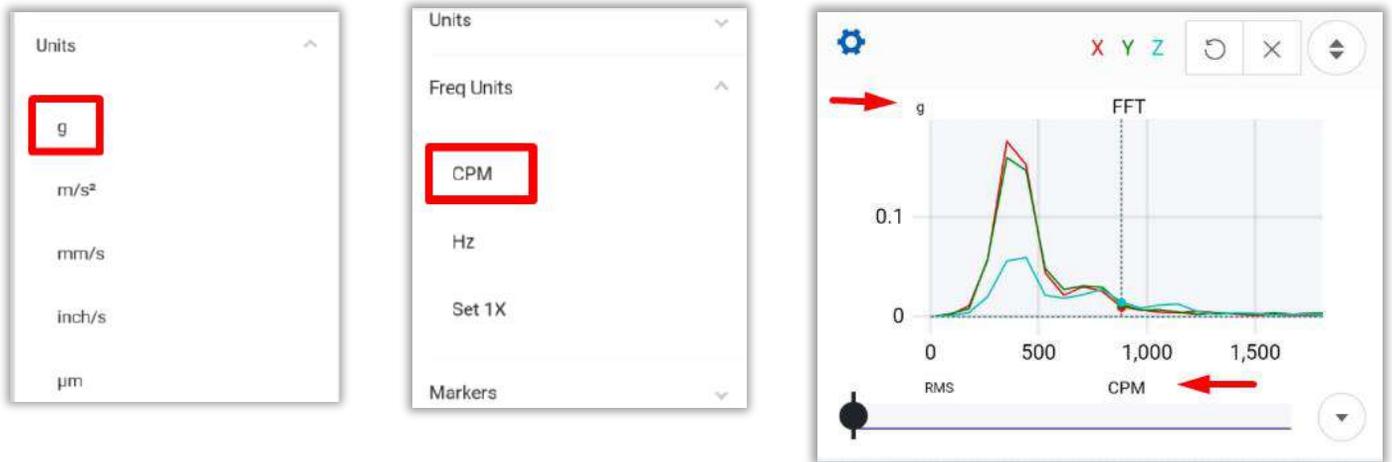


Allows you to move along a channel, at the analysis points, displaying the frequency value with its phase.

Select  to cancel and  to confirm and place the marker.

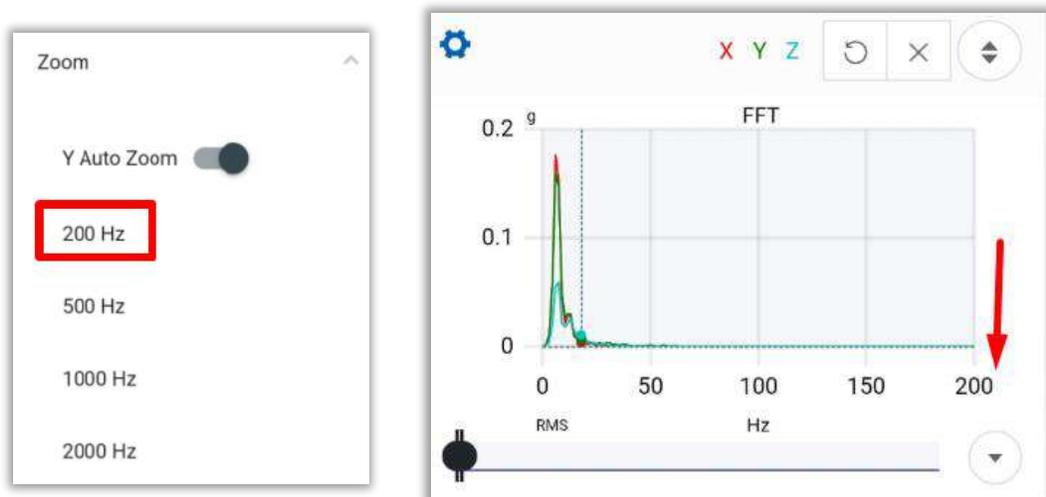
## 2.5.2 FFT Units

With the **units** tool, we can change the Y axis units on the FFT, and with **Freq Units**, we can choose the frequency units shown on the X axis on the FFT. Example:



## 2.5.3 Zoom

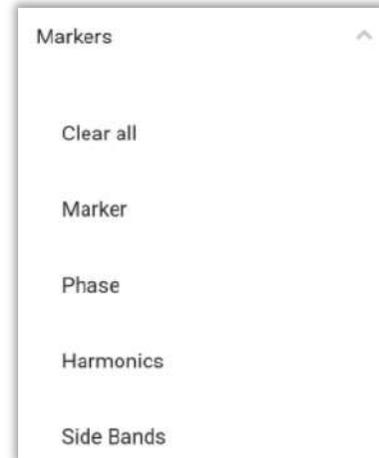
This tool allows you to choose the max frequency that you want to observe on the FFT, allowing you to make an exact horizontal zoom to the value of your choice. Also, **Y Auto Zoom**  allows you to adjust the FFT y axis to show the whole FFT amplitude.



## 2.5.4 Markers

By selecting **Clear All**, you delete all the markers placed on the FFT.

The other tools are described next.



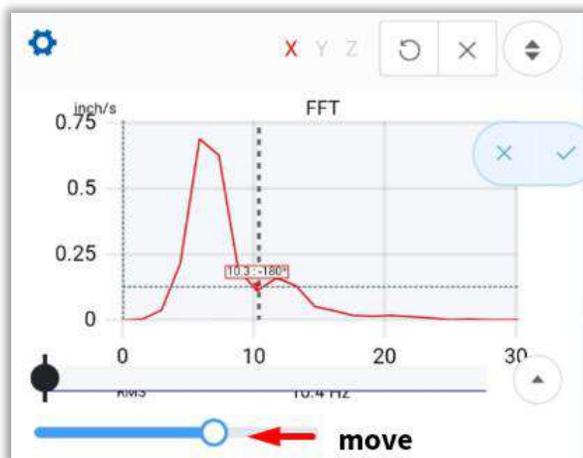
### Marker

With this option, you can place a marker on the channel of your choice.

Use the cursor to place the marker anywhere on the graph or use the lower bar.

Select  to cancel and  to confirm and place the marker.

### Phase (Phase)



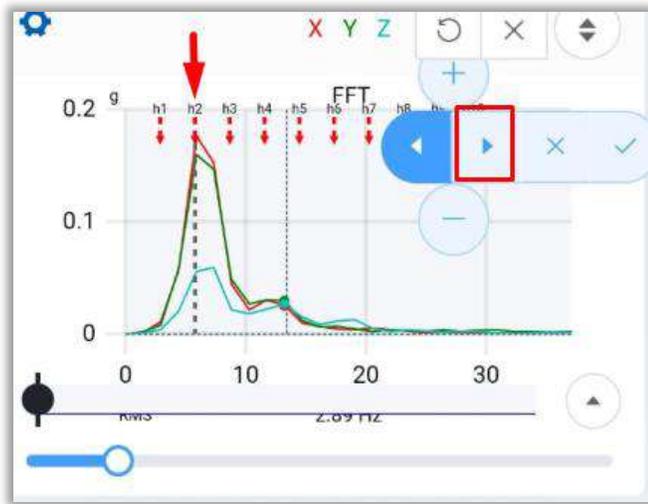
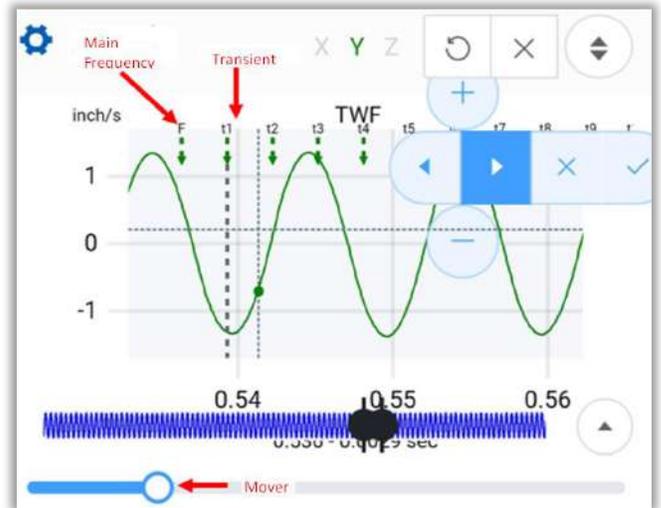
Allows you to move along a channel, at the analysis points, displaying the frequency value with its phase.

Select  to cancel and  to confirm and place the marker.

## Harmonics

Draw the harmonics points on the FFT. Move the first harmonic (**h1**) from the beginning of the FFT, the other ones will be placed equidistant to **h1** to the right. The distance between them is the same as the distances between 0 and **h1**.

Select **+** **-** to add/delete a harmonic point. Click on **×** to cancel and **✓** to confirm and place the harmonics.



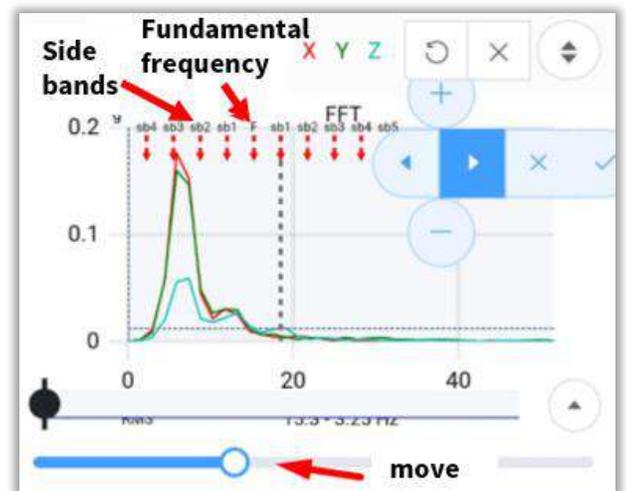
Press **▶** so that your current position becomes the immediate right/left harmonic.

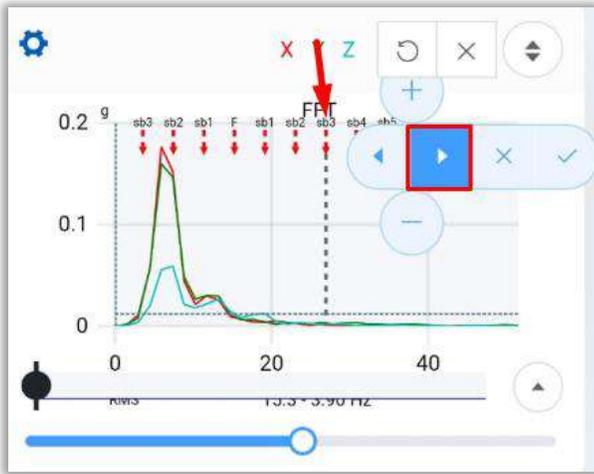
**Example:** On the picture to the left, when we click once on **▶**, the current position moves to **h2**, if we move the lower bar now, the second harmonic will move.

## Side Bands

Draw the side bands on the FFT. Locate the fundamental frequency (**F**) on the FFT, then move the first side band (**sb1**) with the lower bar. The other side bands will be placed equidistant to **F**, 5 to the right and 5 to the left. The distance between them it is the same as the distance between **F** and **sb1**.

Select **+** **-** to add/delete a side band. Click on **×** to cancel and **✓** to confirm and place the side bands.

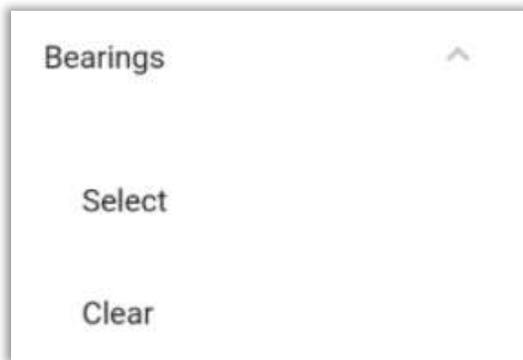




Press  so that your current position becomes the immediate right/left side band.

**Example:** On the picture to the left, when we click twice on , the current position moves to **sb3**, if we move the lower bar now, the third harmonic will move.

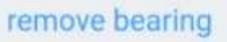
### Bearings

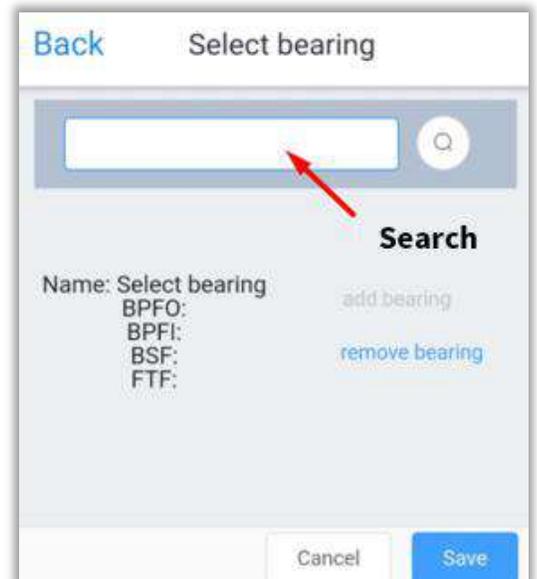


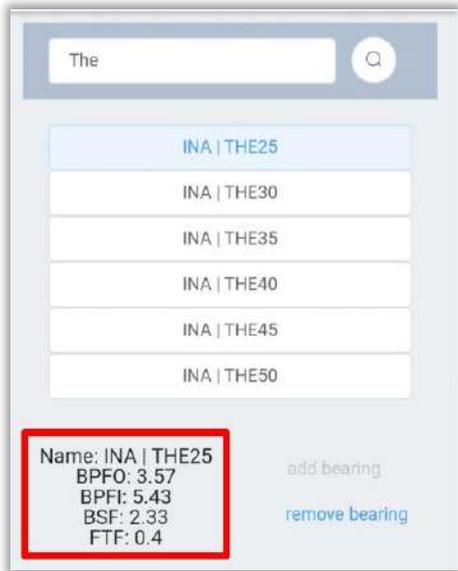
On the **Bearings** section, we can add one or more bearings to the graph.

Open the manager with **Select**.

Choose a bearing from the *WiSER™ Vibe Pro* database, find it manually by typing on the **search** box  and click on .

Select  to delete any previously added bearing.





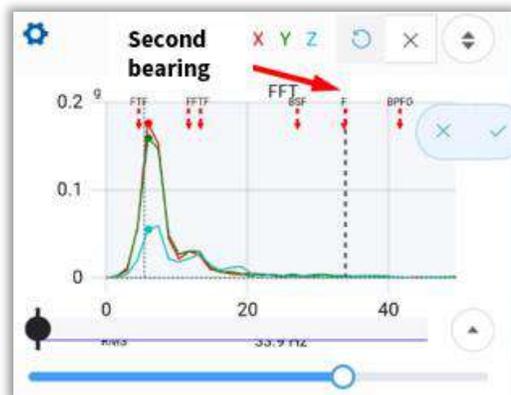
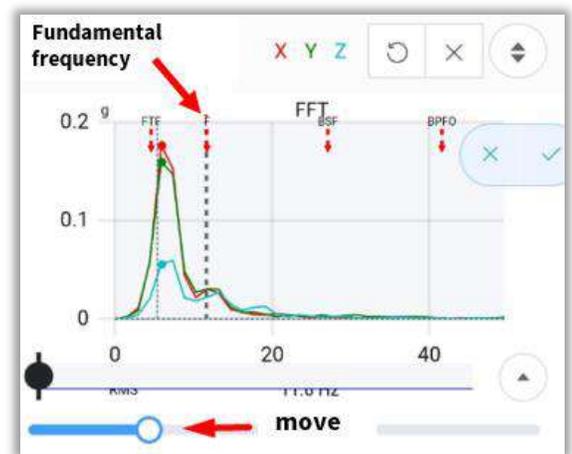
Type the code and choose the bearing you want to add from the list. The bearing information will appear below (marked section).

You will see the following data: BPFO, BPF, BSF and FTF.

Click on **Save** to add the bearing, or on **Cancel** to cancel and close the manager.

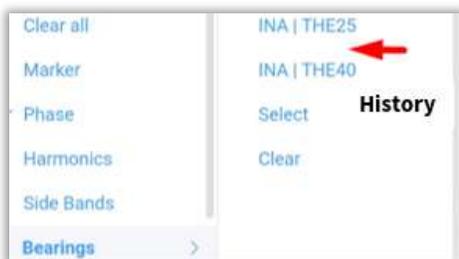
Locate the Fundamental Frequency (**F**) on the FFT. The other frequencies will be placed automatically based on **F**.

Select  to cancel and  to confirm and place the bearing frequencies.



You can add more than one bearing on the FFT.

On the **Bearings** section, the history of the added bearings will be saved. You can add the same one again or a different one with **Select**.



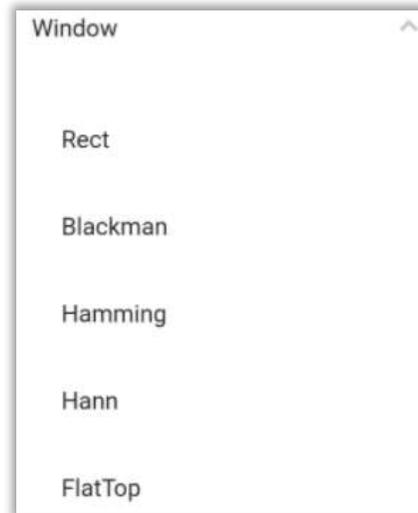
Select **Clear** if you want to clear your history of added bearings.

## Edit Markers

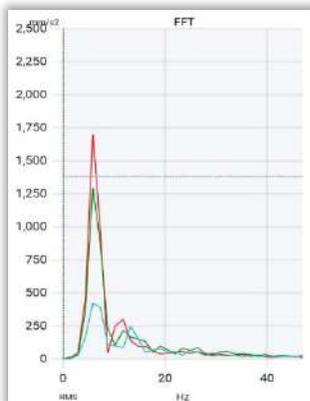
This tool allows you to edit any previously added marker, be it a marker, a phase, harmonic, Sideband and/or bearing. Selecting it displays the editing window. The operation of the editor is the same for TWF and FFT markers. You can read more about the marker editor in section [Markers: edit markers](#).

### 2.5.5 Window Type

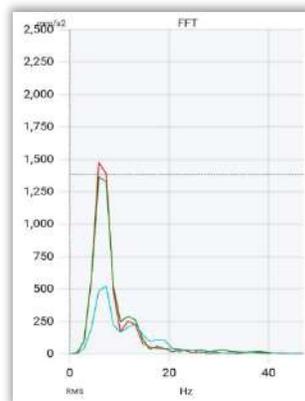
In the **window** section, we can choose, as its name says, the type of window used for the graph. There are 5 types of windows.



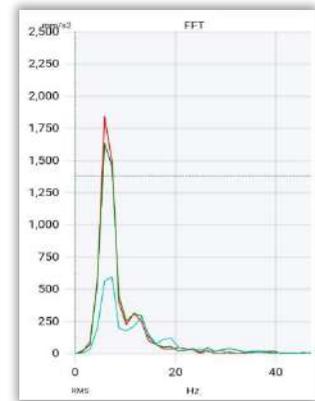
*Rect*



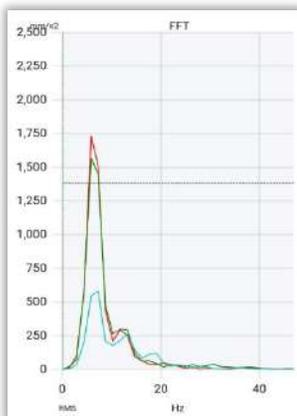
*Blackman*



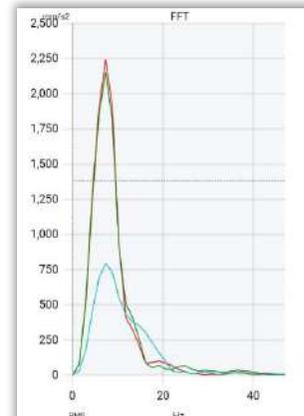
*Hamming*



*Hann*



*Flat Top*



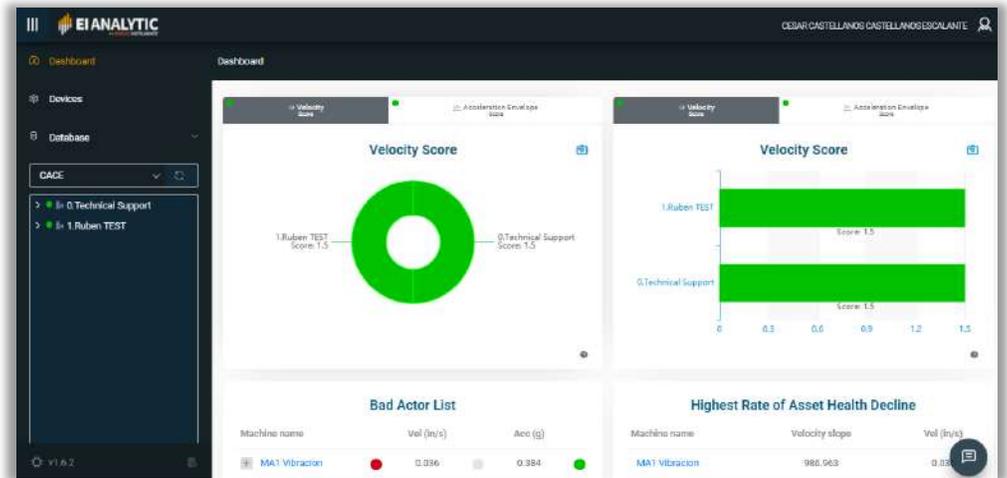
### 3 EI-Analytic™ from WiSER™ Vibe Pro

If you logged in into your **EI-Analytic™** account from **WiSER™ Vibe Pro**, you can access your database dashboard and use all the tools that our web service has to analyze your measurements.

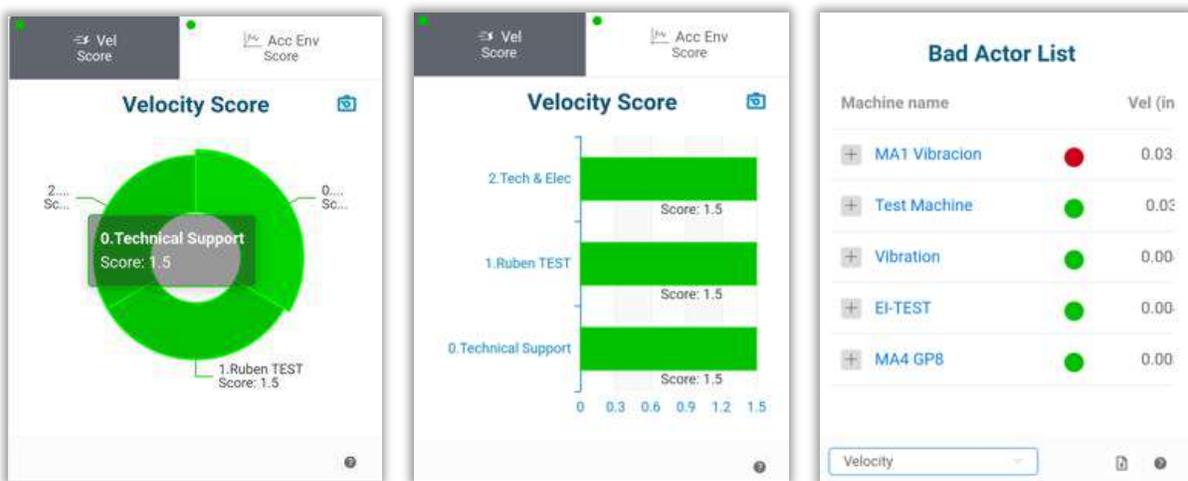
Dashboard on WiSER™ Vibe Pro



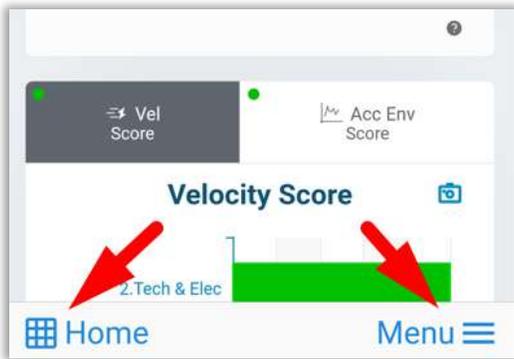
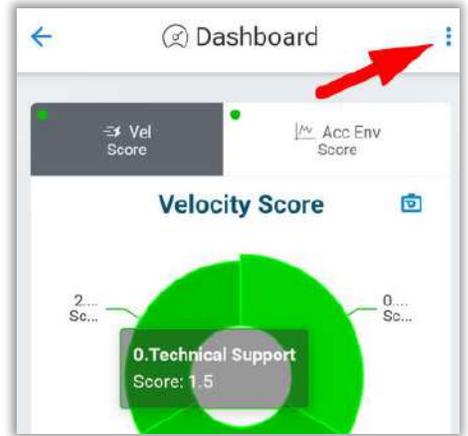
Dashboard on EI-Analytic™



The main screen shows several sections, in the central section we see the speed graphs, acceleration envelope, and more information associated with the companies created in our database.



In the upper right part of the window, is the **account options** in the button .



Bellow are two tools, the account menu  and the

 button.

The  button, redirects you to the WiSER™ Vibe Pro main screen.

The rest of the tools are described below.

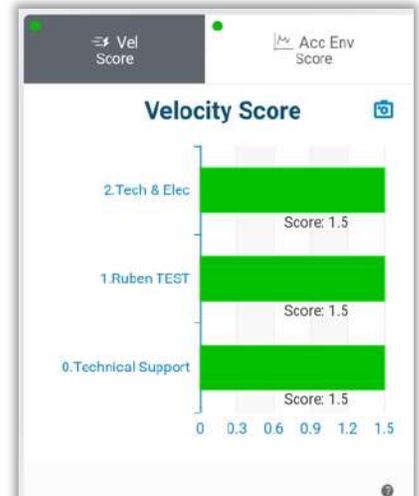
### 3.1 Graphics description

On the dashboard main screen, there are four graphics. We will start by describing the first two. Before we begin, [click here to learn more about the score and how is calculated.](#)

#### 3.1.1 Score circular and bar graphic

The first graph is a circular chart with the score and the name of each company.

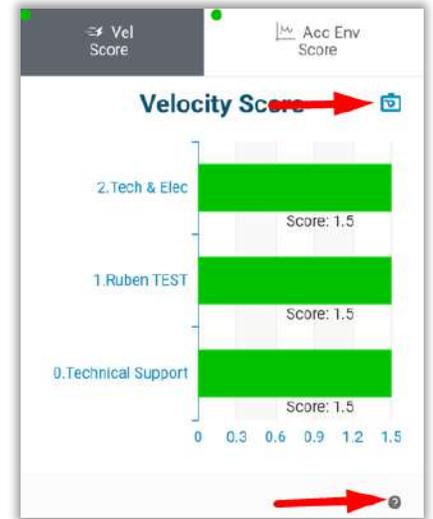
The second shows you the same information represented by a horizontal bar chart with the score value on the x-axis.





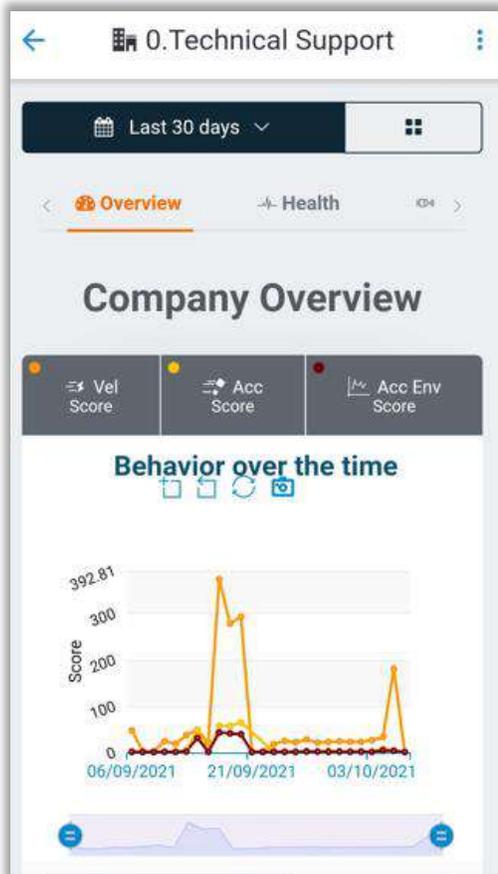
At the top you can switch between speed and envelope acceleration.

In both cases, you can use  to export the graphic as a picture. You can also click on  for a brief description of what the chart shows.



By clicking on one of the companies, either in the circular chart or in the bar chart, you can access an information window featuring 3 options: Overview, Health and Phantom™.

### Overview



In this section you can see several graphs that describe the scoring behavior of all the elements contained in this company.

The first graphic shows the behavior over the time of the score, for the **velocity**, **acceleration**, and **acceleration envelope**, which is described below.

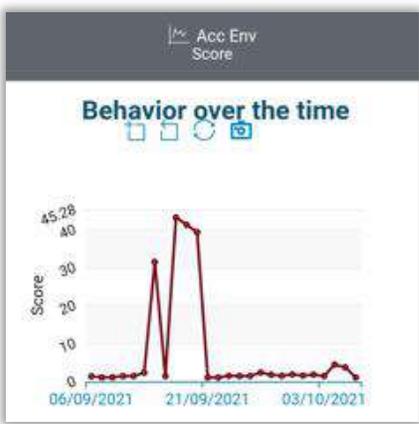
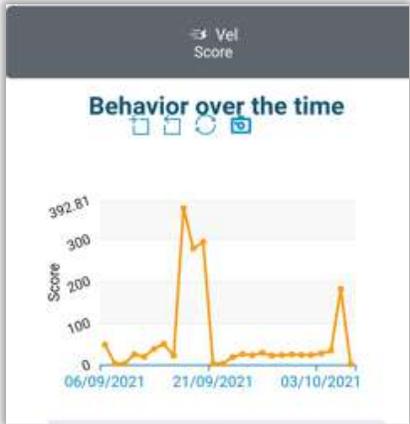
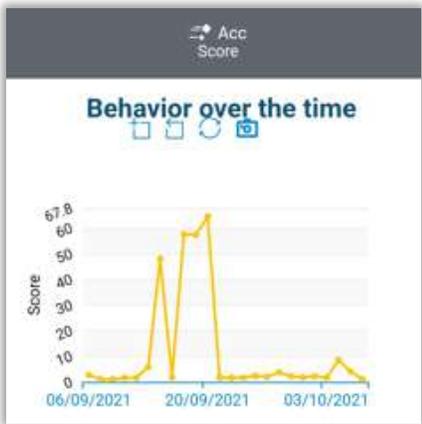
At the top, you see which company you are connected to, in this case its **“0.Technical support”**.



Click on  to choose the interval of data you want to see on the graphic.

Choose an option or click on  to select a specific date from the calendar.

In the window, you can click on  to switch between the **velocity**, **acceleration** and **acceleration envelope** in different graphics.



These 3 graphs have the same functions as the first one, which we will describe below.

***Behavior over the time***



Here you see the behavior over the time of the score of the **velocity**, the **acceleration**, and **acceleration envelope**.

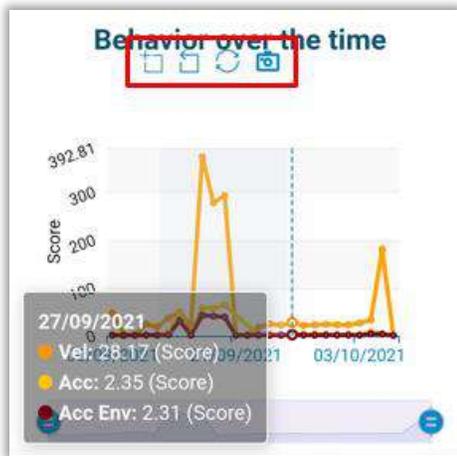
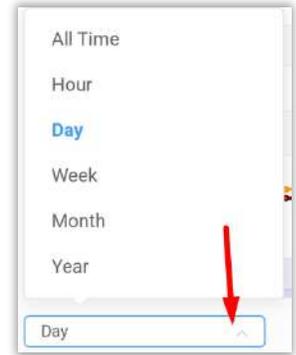
You can choose which parameter to see with the following tools:



Click on box to activate/deactivate the parameter.

To choose how much data you want to see, click on  to display the options.

Example: choosing “**Day**” will show you the highest value for each day. To see all the measurements made, choose “**All Time**”.



Bellow the graph title, are 4 tools:

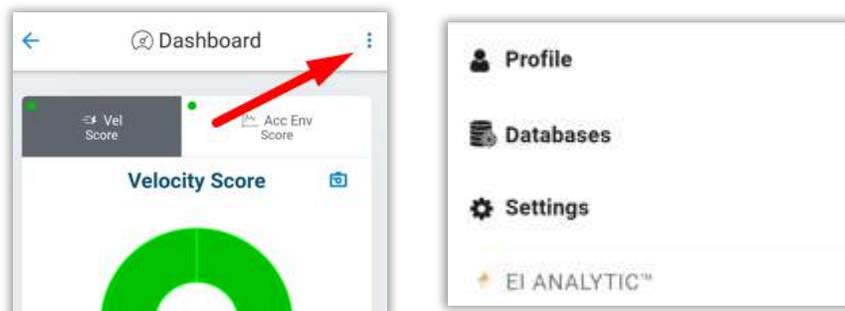
-  Make an horizontal zoom by drawing an area with the pointer.
-  Deletes the immediately previous zoom.
-  Completely deletes the zoom, returning the graph to its original size.
-  Save the graph as an image.

You can also zoom horizontally with the bar below the graph:



### 3.2 Account Options

On the bottom right corner, you can access the options for your [EI-Analytic®](#) account by clicking on .



## 3.2.1 Profile

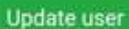


Click on  **Profile**, to see your profile general information, including:

- Cover picture
- Profile picture
- Name
- Company
- Email adress

Select  **Edit** to change your profile information.

You can write a new company/email/name and press

 **Update user**

to save changes, or  **Cancel** to cancel.

**NOTE:** You will have to enter your password in order to change your information.

A form for editing profile information. It contains four input fields: 'name' (Cesar Castellanos Castellanos Escalar), 'email' (cesar@erbessd-instruments.com), 'company' (Erbessd Instruments), and 'password' (masked with dots). There are 'Cancel' and 'Update user' buttons at the bottom.A form titled 'UPDATE PASSWORD'. It has three input fields: 'Type your current password', 'Choose a New password', and 'Re-type your new password'. There is a 'Save new password' button at the bottom.

You can change your current password on “**UPDATE PASSWORD**”.

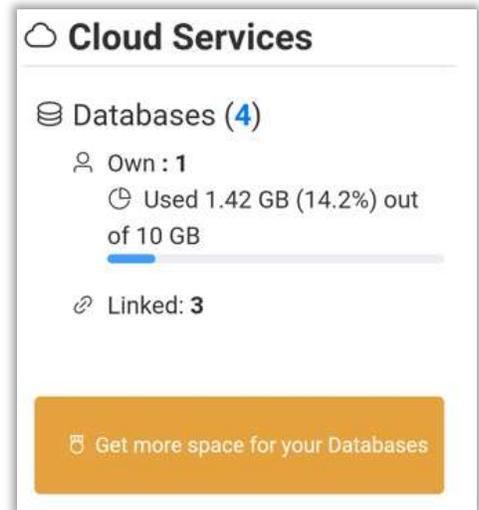
Type your current and new password, as shown in the example to the left.

Click on  **Save new password** to save your changes.

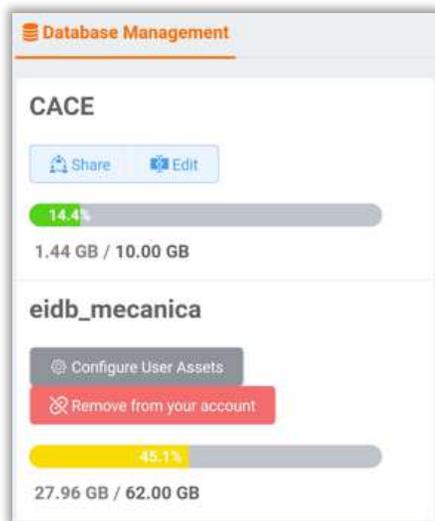
In Cloud Services, we see the percentage of occupied space with respect to the total.

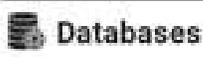
- “**own: 1**”, number of databases owned by me.
- “**linked: 3**” Number of databases shared with me.

You can request an additional 10 GB of storage at only \$995.00 USD/Year with the button:



### 3.2.2 Databases



When you select  the “**database management**” screen is displayed.

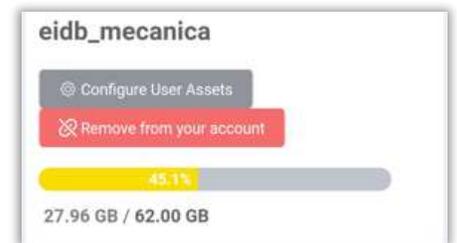
Here, you can see the percentage of data occupied in each database, for example:



#### Shared databases

Select  to configure the notifications that you receive from this database.

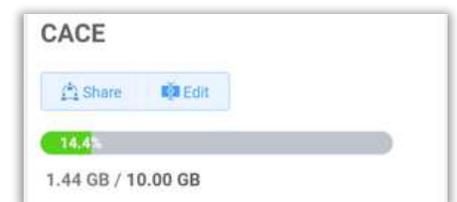
Click on  to remove this database from your account.

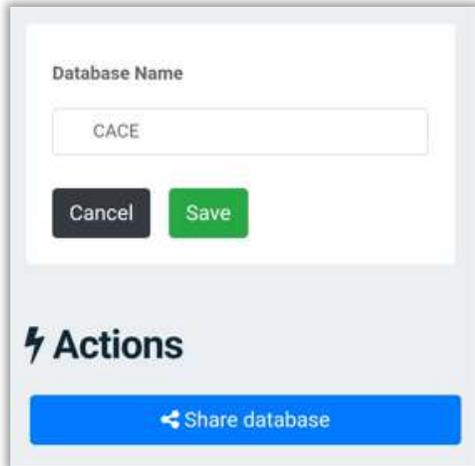


#### Owned databases

Click on  to edit your database.

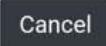
Click on  to share your database.

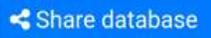




### Edit Database

Click on  to edit your database. In the “**Database name**” section, you can change your database name.

Select  to save the changes or  to cancel.

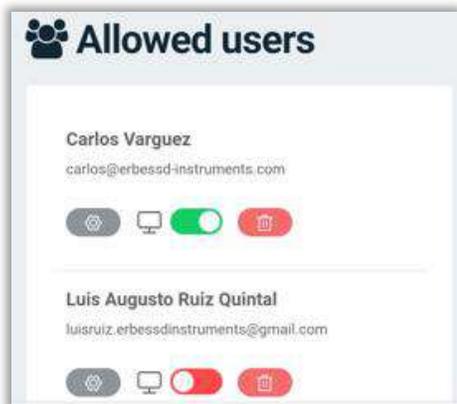
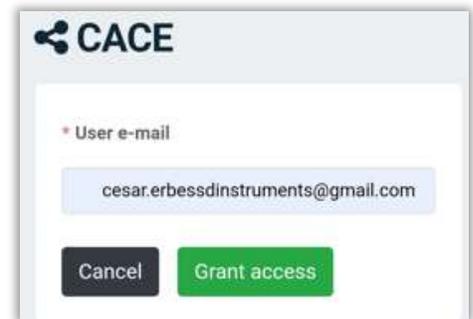
Click on  to share your database.

### Share Database

Click on  to share your database. A manager will be displayed like the one shown to the right.

Enter the email address of the person you want to share the database with in “**\*User e-mail**”.

Click on  to share it, or  to cancel.



Below, on “**Allow Users**” are the users who have access to your database. Click on  to stop sharing your database with that account.

Activate  or deactivate  the DigivibeMX® visualization for this account.

Click on  to change the notifications that this persons will see from your database.

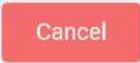
## Configure Notifications

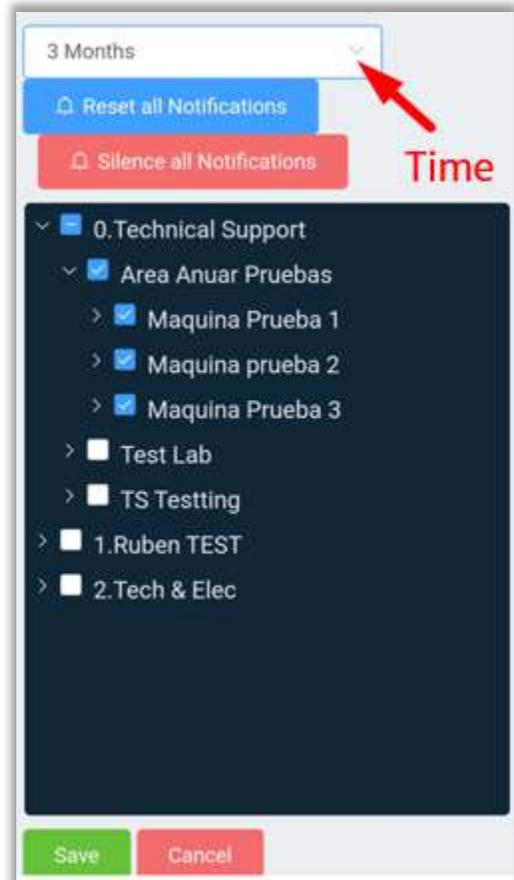
On this screen you can mute the notifications that you receive from a shared database, or the notifications that others receive from your own database.

Select how long you want to mute the notifications, click on



Display the database tree with  and select the section that you want to mute .

Select  to save changes or  to cancel.

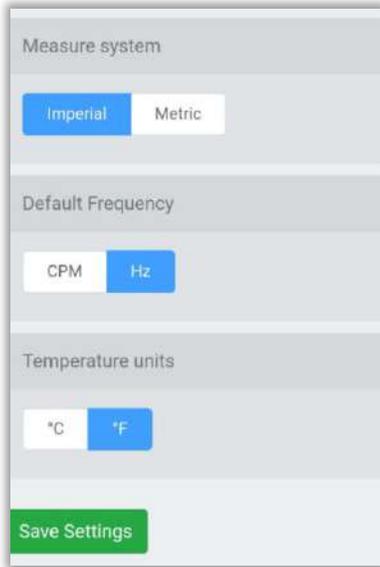


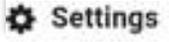
Any muted section will have this icon: . Example:



Select  to silence all notifications. Click on  to reset the default settings, with no notifications muted.

### 3.2.3 Settings



Click on  **Settings** to access your database settings.

Here you can choose the units that you want to use on the app.

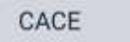
- **Measure system:** Choose between metric and imperial system.
- **Default frequency:** Choose the default frequency units shown in graphics.
- **Temperature units:** Pick the default temperature units show in graphics and data tables

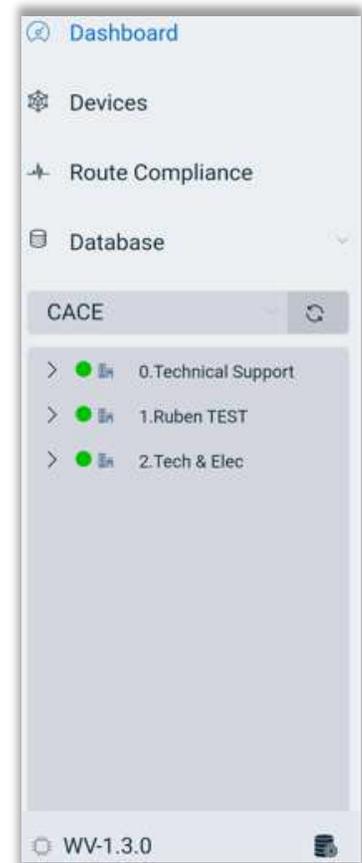
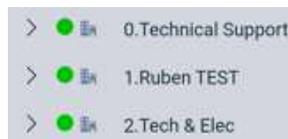
Press  to save the changes.

### 3.3 Menu

On the lower right corner of the [El-Analytic®](#) dashboard main screen is the menu. Select  **Dashboard** to return to the main dashboard.

After that we have 3 options:  **Devices** ,  **Route Compliance** and  **Database** .

Bellow we have the database  and the database tree:





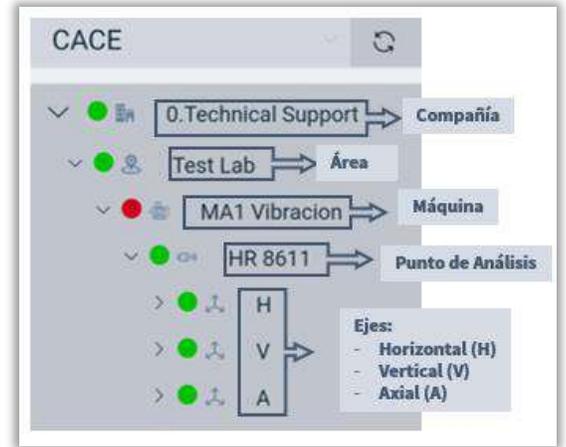
On the **CACE** window, you can change the database that you're connected to. Choose an option from the list.

You can also refresh your database with the  button.

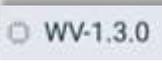
Below is the database tree, that is divided into sections as is shown on the example to the right.

Click on  to expand the tree, and  to hide it.

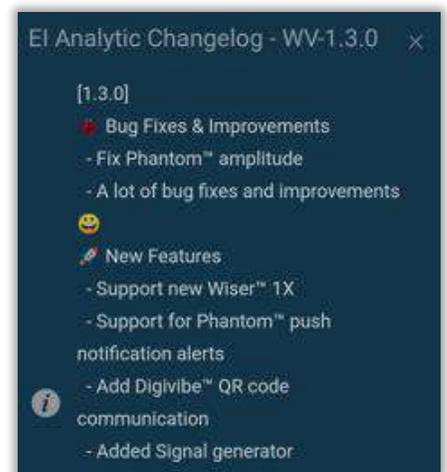
The severity color to the left of each section depends on the branches, either **green** , **yellow** , **orange**  or **red** . This will be explained in the section [¡Error! No se encuentra el origen de la referencia..](#)



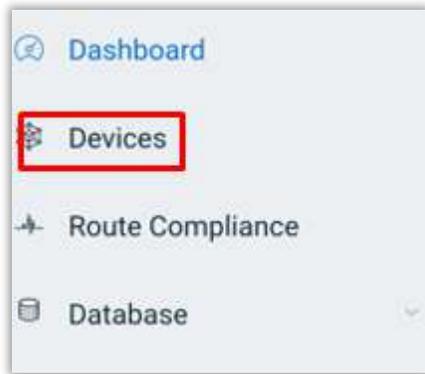
At the bottom of the menu, are two buttons. With the  button, you can access the database menu, with all the tools that we saw in section **Databases**

By clicking on  you can see relevant information regarding the app.

Here you will find the improvements and bug fixes in this version of WiSER™ Vibe Pro, and the bug fixes from the previous version.



### 3.3.1 Devices



From the menu, you can access to the **Devices** section.

Here you will see the [El-Analytic®](#) device window.

Here, you can see all the sensors registered on our database, including the following info:

- Severity level for the last measurement.
- Sensor type symbol.
- Location of the sensor on the database.
- Serial number (code), model and firmware version.
- Date and time of the last connection.
- Battery level.
- Sensor internal temperature.
- Signal strength on decibels (dB)

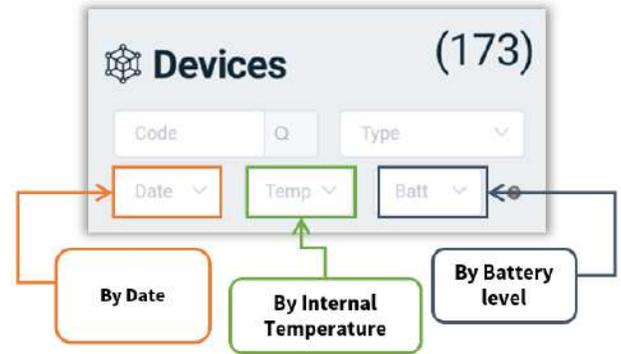


In the search boxes, you can find a Phantom™ sensor in two ways:

1. With the code (serial number)
2. Sensor type (vibration, current, rpm, etc)

Then, we can choose to view the values in ascending or descending order, sorting them by three options:

1. Date
2. Internal Temperature
3. Battery



### 3.3.2 Route Compliance

On the menu we can find the **Route compliance** tool.



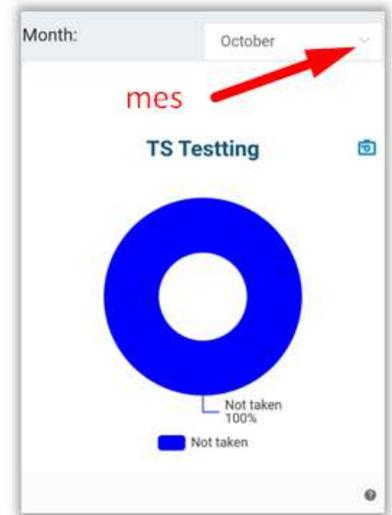
As you know, when you create a route, we can add a route schedule that tells us how often we are supposed to take measurements on this route.

This graph tells us if we are compliant with this calendar, dividing the values into 3 types: ■ Not taken ■ Monitored ■ Overdue

The graphic will show you the compliance percentage of each route, for the current month and one previous month.

Select  to choose how many months you want to see on the graph. Click on  to save the graphic as an image.

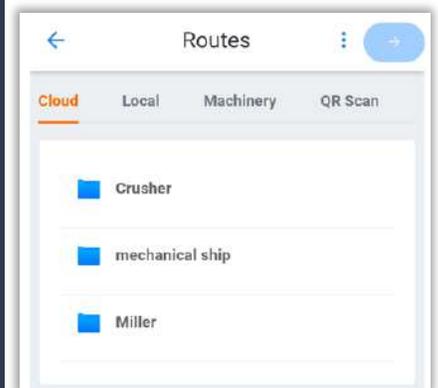
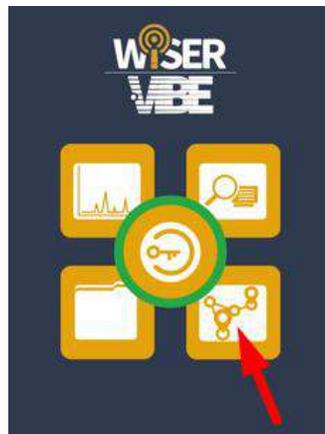
In this section we will also see the areas containing routes and the percentage of compliance for each of them throughout the selected month. Click on  to select the month to display. Select  to save the graph as an image.



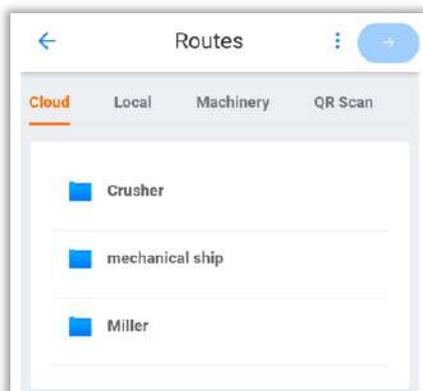
## 4 Routes

The **Routes** section allows you to record the vibration data of your machines in a faster and more practical way. When selecting this tool, a window will be displayed where you will find 4 options:

1. Cloud
2. Local
3. Machinery
4. QR Scan



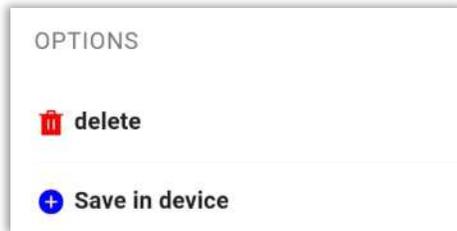
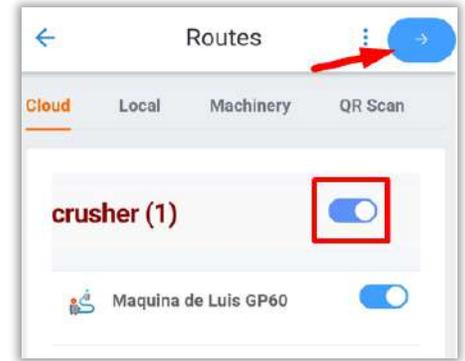
### 4.1 Cloud



This option will only be available if you have already logged in to your [EI-Analytic®](#) account.

Here you will see all the routes in your cloud database, those created from the WiSER™ Vibe Pro app, as well as those created from DigivibeMX® and [EI-Analytic®](#).

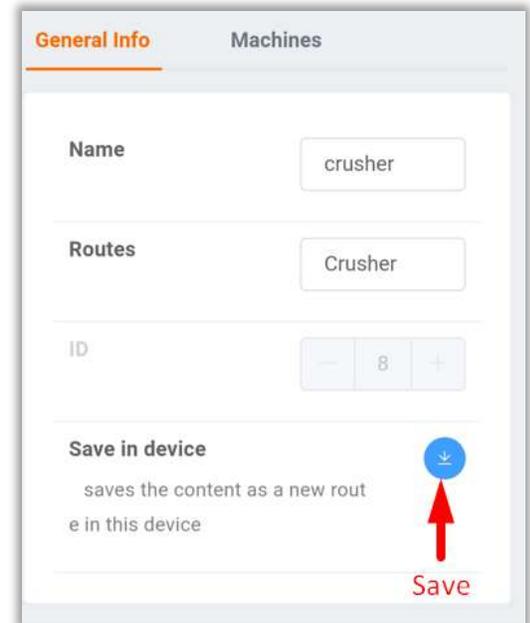
Choose the route you want to measure. Once selected, activate the route and the machine(s) with  and press  to continue.



On the bottom right corner, in  are two options:

-  **Delete:** Delete the selected route or machine(s).
-  **Save in device:** Save the route on your device so you can access it without internet connection.

In the next tab, is the general information of the route, the name, and the group to which it belongs (**routes**). You can modify these parameters and create a new route.



Below, is the **save in device**  option. Here, you can save the route locally so you can access it without internet connection.



On this window, the **Machines** tab allows you to choose which machines from the route you want to record. Select or unselect the machine by activating/deactivating the button .

Once you have finished, select  to continue.

## 4.1.1 Record data on Route

At the top of the next tab, the machine name is displayed (in case you have more than one machine on the route) as well as the analysis point being measured.

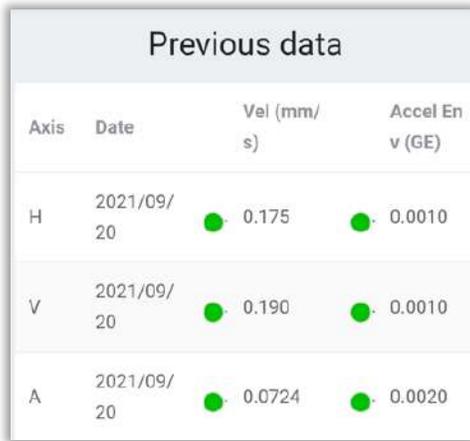
**Machine name**



Axis	Date	Vel (mm/s)	Accel En v (GE)
H	2021/09/20	0.680	0.0276

You can move to the next and previous machine with  and .

You can also expand the machine and point name with .

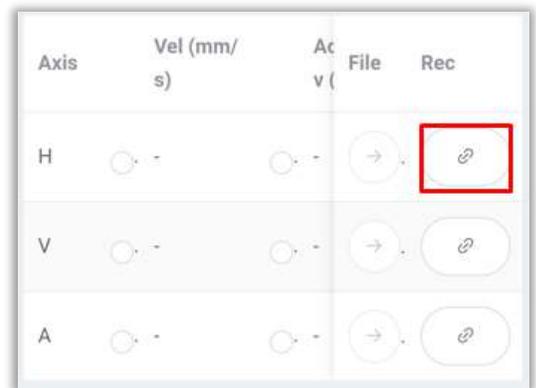


Axis	Date	Vel (mm/s)	Accel En v (GE)
H	2021/09/20	0.175	0.0010
V	2021/09/20	0.190	0.0010
A	2021/09/20	0.0724	0.0020

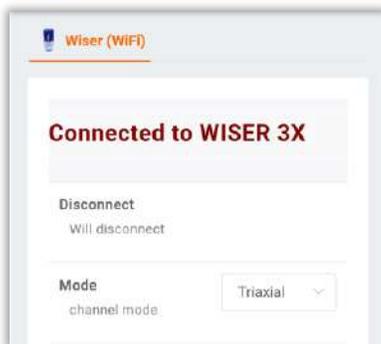
In this window, at the top we can see the **previous data** section, where we will find the data that have been previously measured on this machine.

The **new data** section at the bottom is where new measurements will be recorded.

Select it to display the Wi-fi tab of the connection manager.

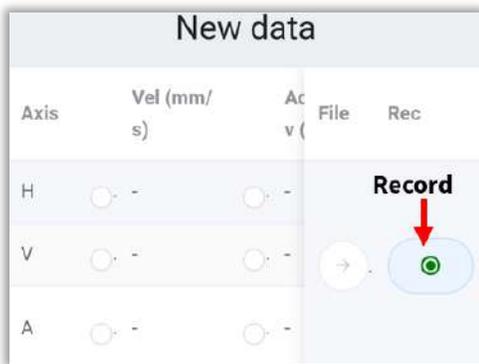


Axis	Vel (mm/s)	Accel En v (GE)	File	Rec
H	-	-	→	
V	-	-	→	
A	-	-	→	



In this section we can connect to a WiSER™ 3X via Wi-fi and change the recording settings, as we did in section [Option 1: WiSERTM 3x](#).

On the bottom of this window, WiSER™ 3X icon is displayed, where we can select the accelerometer position according to his axes:



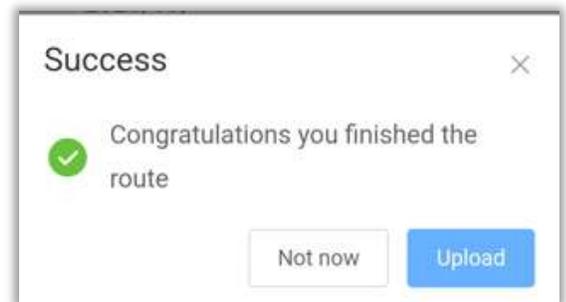
Once we connect to the WiSER™ 3X, on the **new data** section the **record** button  will appear.



If you use the **single axis** option for the triaxial accelerometer, you will have to press record on each axis (H, V and A).

As you record, the points and machines will change automatically.

At the end of the route, select  to upload the route data to your cloud database, or select  to upload later



✓ Route in queue

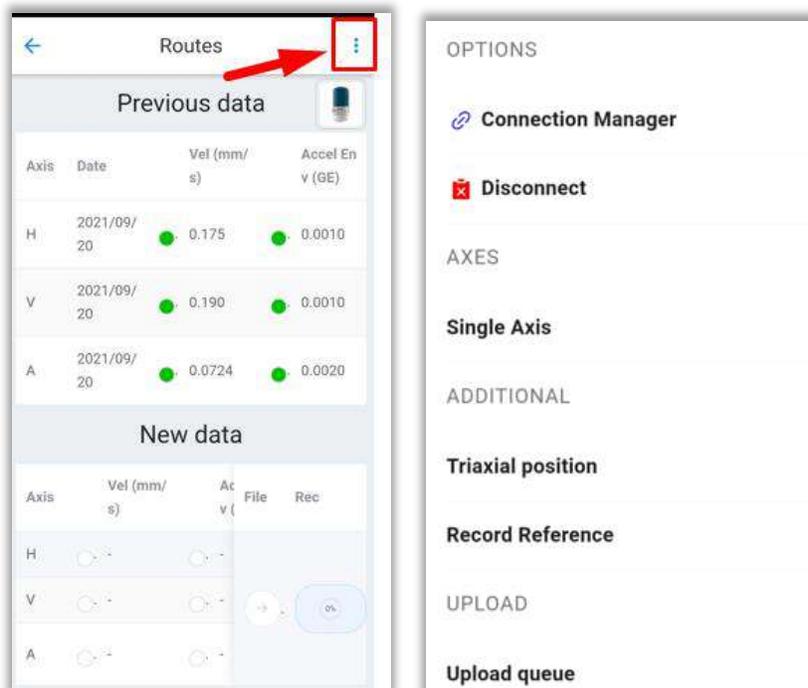
When uploading the route, **Route in queue** is displayed, indicating that the data is in the upload queue of the app.

✓ Successful upload - file: Maquina de Luis GP60-1-3x.anl

Once the data is successfully uploaded to the cloud, **Successful upload** is displayed, followed by the file name.

## 4.1.2 Route options

When we start recording data in a route, in the upper right corner will display the options menu . These options are available in the local routes as shown below.



*Connection Manager*

Connection Manager

By opening the Wi-fi option of the connection manager, we can connect to a WiSER™ 3x via Wifi and change the measurement settings, as seen in section [Option 1: WiSERTM 3xX](#)

*Disconnect*

Disconnect

Disconnect the application from the WiSER™ 3x device to which we are currently connected.

*Single Axis / Triaxial*

Single Axis

Triaxial

Switches between triaxial (3-axis) and monoaxial (single axis) measurement mode.

*Triaxial Position*

Triaxial position

Use this option to select the position of our Accelerometer according to the axes:



*Upload queue*

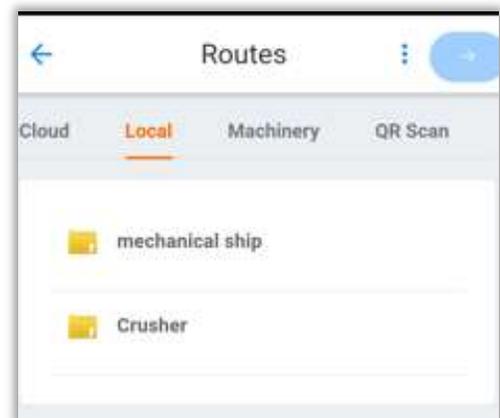
Upload queue

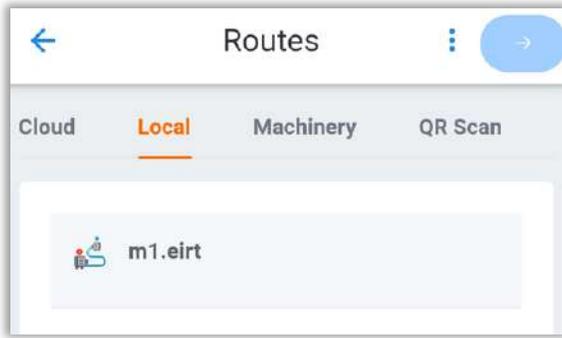
If you choose not to upload the files to the cloud upon finishing a route, they will remain in the **data queue**. Selecting this tool, the data in this queue will be uploaded to our cloud database.

## 4.2 Local

In the **Local** section, we will see the routes that have been saved on our device, these will be available even when we are not logged in to [El-Analytic®](#).

Choose a folder to select the route.

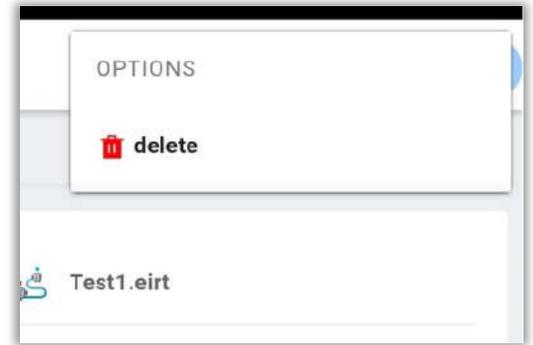




Once you select the folder, you will see the paths belonging to this group.

Select the path and then click on to  continue.

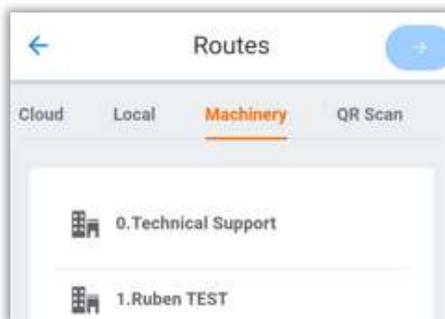
In the upper right corner, is the options menu . Choose the  **Delete** tool to remove this machine or selected route.



### 4.2.1 Record data on Local routes

Once you choose the machine to record, follow the same procedure for recording routes in the cloud, as seen in section [Record data on Route](#).

## 4.3 Machinery



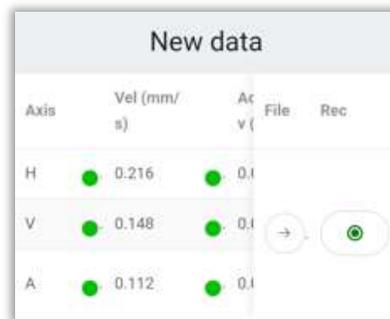
In the **machinery** section we can record data directly to a machine or machines in our database. To use this option, it is necessary to log in to [EI-Analytic™](#).

Choose the company where your machine is located.

Activate/deactivate the slider buttons  to select which areas you want to add to the route. Press  to continue

Select the machines that you want to include with the same slider buttons  .

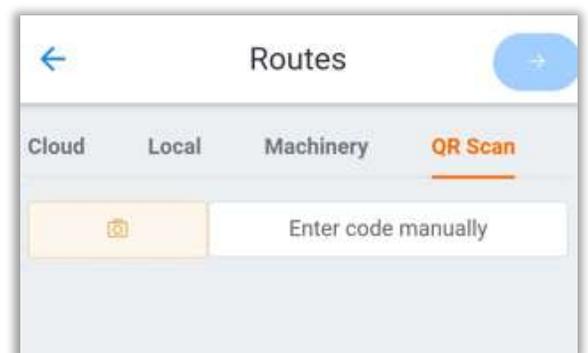
Select  to continue.



Then, we will record the data machine by machine, as seen in section: [Record data on Route.](#)

## 4.4 QR code

On the **QR scan** section, we can scan a machine QR code or type the number manually to record data.

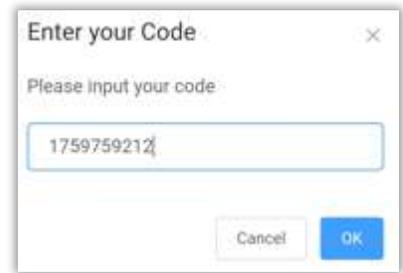




Select  to open the device camera and scan the Phantom™ QR code.

Or click on  to type the machine code and enter it manually.

Press  to confirm and  to cancel.

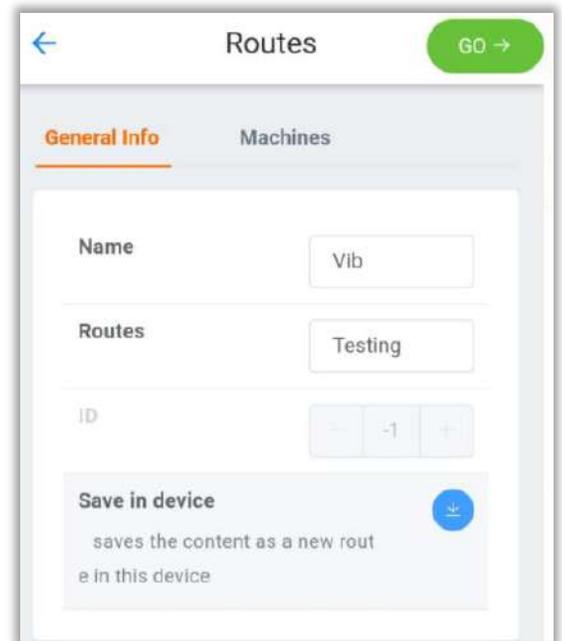


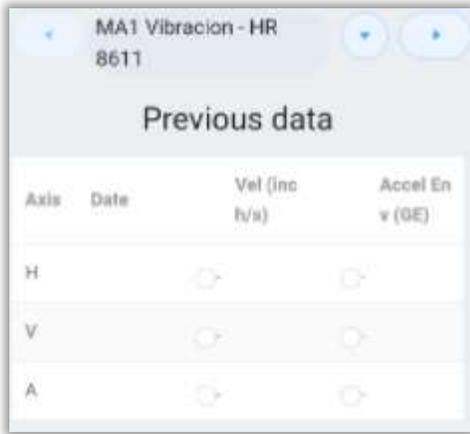
Once you confirm and the machine loads, select  to continue.

Once the machine is selected, you must add it to a new route, choose the **name** and the **route**.

Select to  save the route to the device and have it available locally.

Select  to continue.



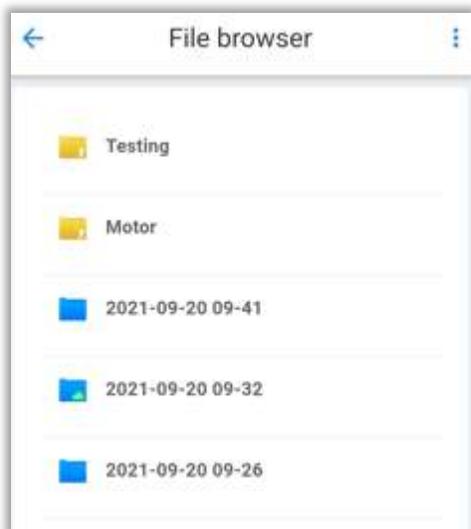
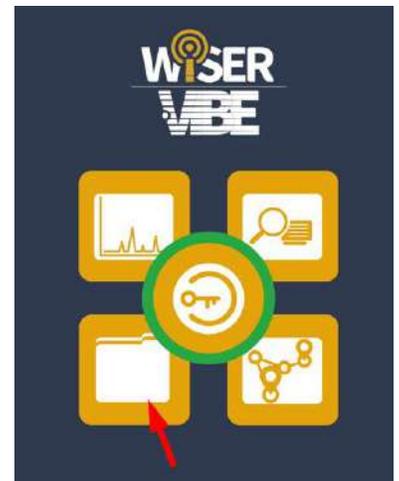


Next, we will see the recording screen, where we will record the data as we saw in section: Record data on Route.

## 5 File Browser

In the file explorer are all the signals that have been previously saved on the device.

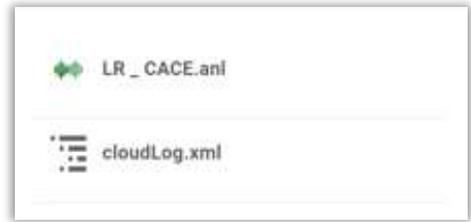
Whether from a cloud route, a local route, or from the analysis tab, when a signal is saved will go to the file browser.



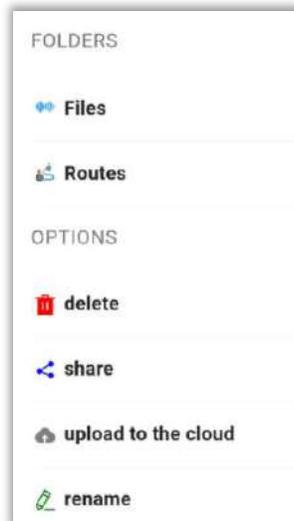
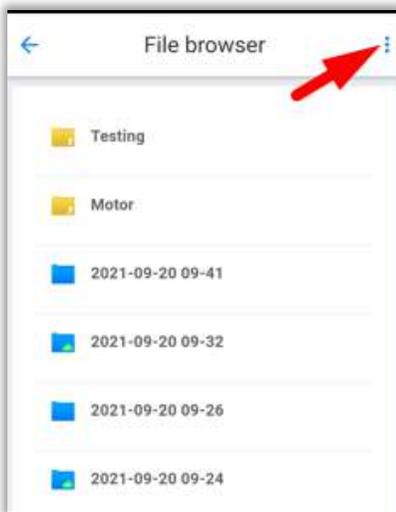
When we open the file explorer, are two different folders: the blue folders are those that were saved in a cloud route;

The yellow folders are those that were saved locally, or in the analysis tab.

By selecting a folder we will see the files that were recorded and saved in it, for example the signal with the name "**LR\_CACE.anl**". If the folder is a route, we will also find a file named "**CloudLog.xml**".



You can click on the .anl file to open the signal.



In the upper right corner is the file explorer tools .

They are divided into:

- Folders
- Options

## 5.1 File Browser Tools

*Files*

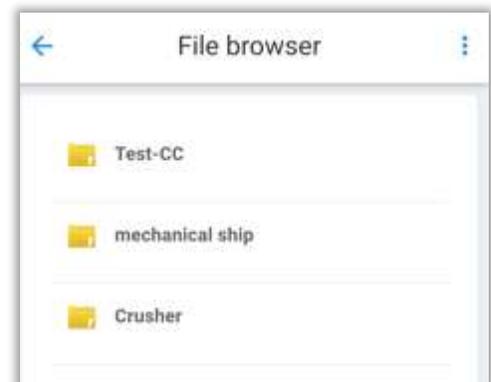


By selecting this tool, we see the file folders in our file explorer. This option is selected by default when the explorer is opened.

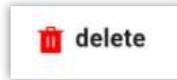
*Routes*



This tool will display the local routes you have on your device, allowing you to start the route from the file browser. When you choose the route, the route recording screen is displayed.

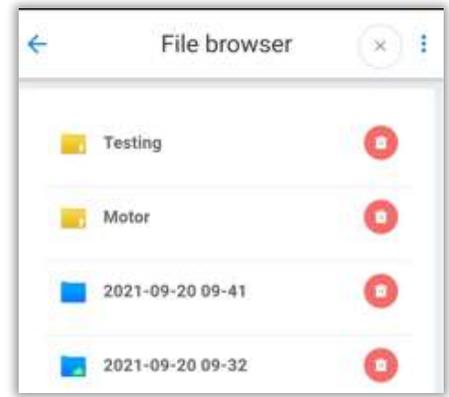


Delete

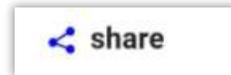


Allows you to delete folders or files from the browser.

Select  to delete a file/folder. Press  to close the tool.

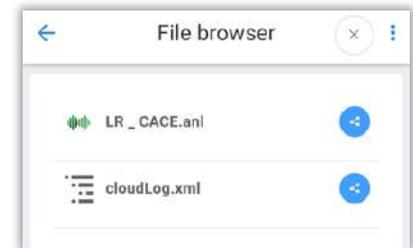


Share



Allows you to share folders or files from the browser.

Select  to share a file/folder. Press  to close the tool.



Upload to cloud



Allows you to upload folders or files to your cloud database.

Select  to upload a file/folder. Press  to close the tool.

Once a folder has been uploaded to the cloud database, this confirmation symbol will appear:

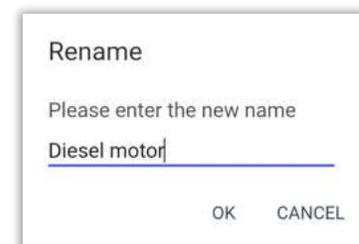


Rename



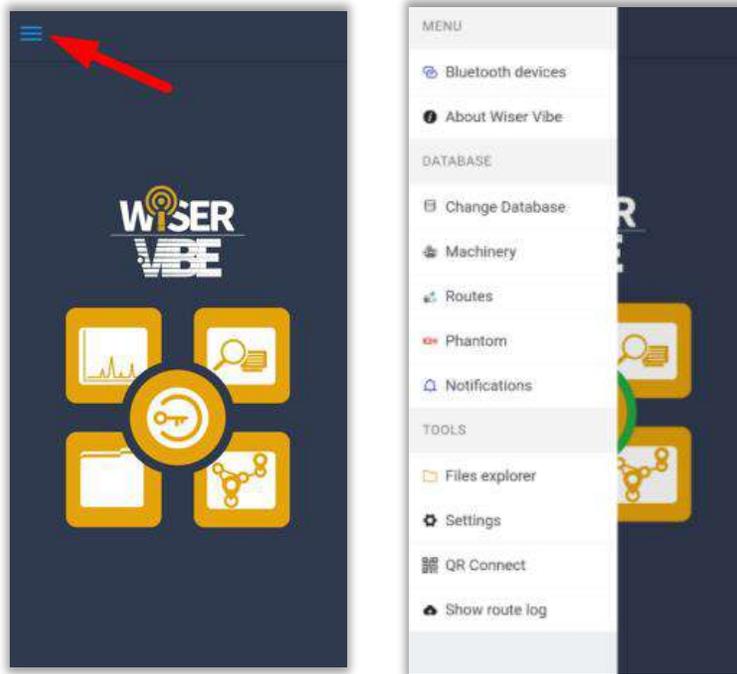
Allows you to rename a folder or file. Select the folder/file to rename, type the name you want and select **OK** to confirm.

Press **CANCEL** close the tool.



## 6 Options

On the bottom left corner of the WiSER™ Vibe Pro Main screen, is the settings menu .



### 6.1 MENU

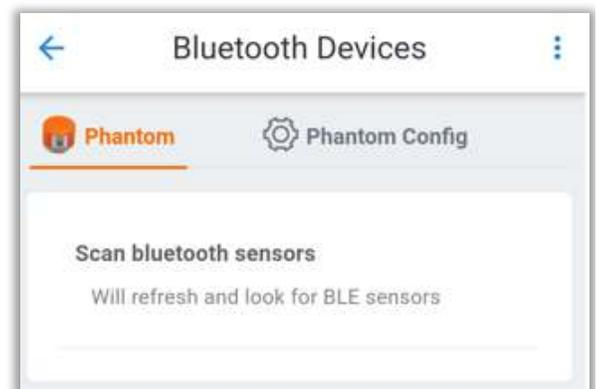


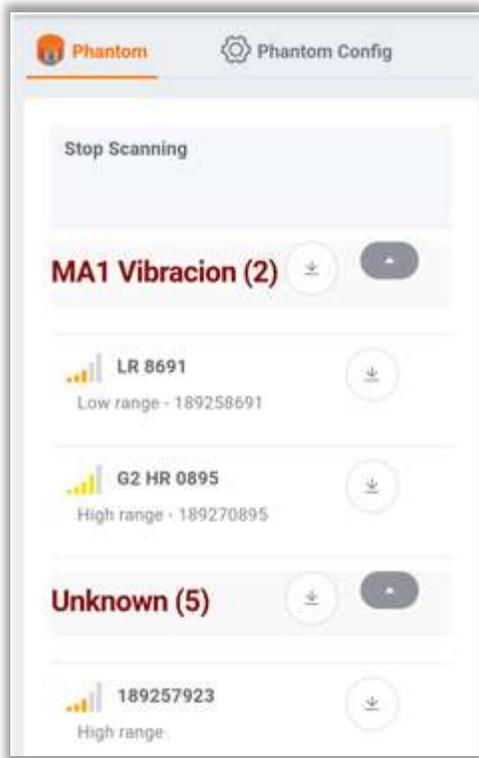
The first part of the menu has two options:

- Bluetooth devices
- About WiSER™ Vibe

#### 6.1.1 Bluetooth Devices

When accessing this tool, the Bluetooth connection manager is displayed.





Clicking on **scan bluetooth sensors** will display a list of the Phantom™ sensors detected by your device.

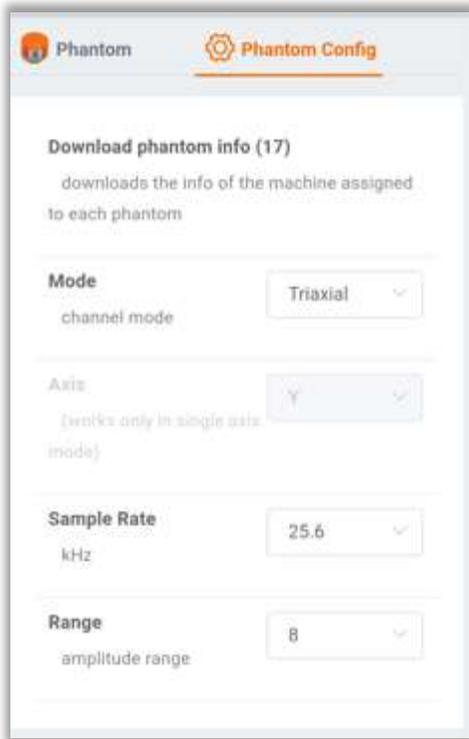
If you are connected to your cloud database, and any of the detected Phantom™ are registered in the database, they will appear below the machine name, as shown in the image in the "**MA1 Vibration**" machine example.

Sensors that are not registered will appear under "**Unknown**" label.

In this window, we can download or request a signal from our Phantom™ sensors. Press  to download a signal. A loading indication  will appear. When loading is complete, this confirmation message will display at the top of the window:



You can open the measured signal with the button . Selecting it will take you to the analysis screen described in section: [Analysis Window](#).

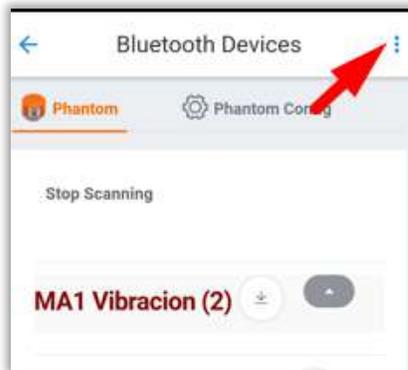


You can change the recording settings before starting in the "Phantom™ Config" window.

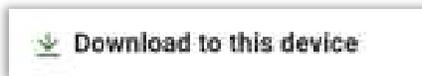
These settings are the same as described in the "Phantom™ Config" window on section:

Option 2: Bluetooth devices™

In the upper right corner of this window, is the bluetooth devices options, with three tools.



*Download to this device*



Once you have loaded the signal from a Phantom™, selecting this tool will download the signal to your device, thus making it available in the file explorer.

*Download and queue*



This tool will save the signal on this device, and will also add it to the upload queue to your cloud database (you need to log in first).

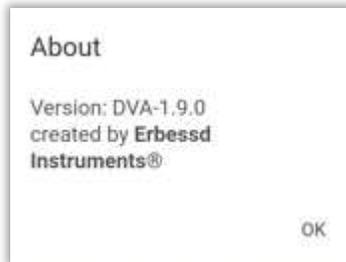
Send upload command

Send upload command

Upload the signal you took to your cloud database without saving it to your device.

### 6.1.2 About WiSER™ Vibe

About Wiser Vibe

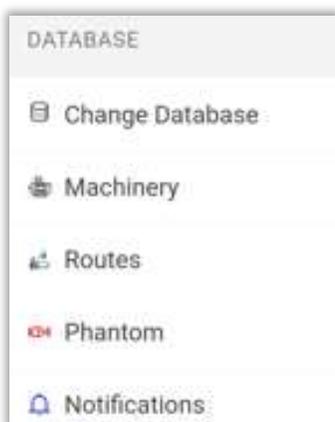


When selecting this option, we will see the version of the application, as well as the message **"Created by Erbesd Instruments®"**.

Select this option to see the version of the application, as well as the message **"Created by Erbesd Instruments®"**.



## 6.2 DATABASE



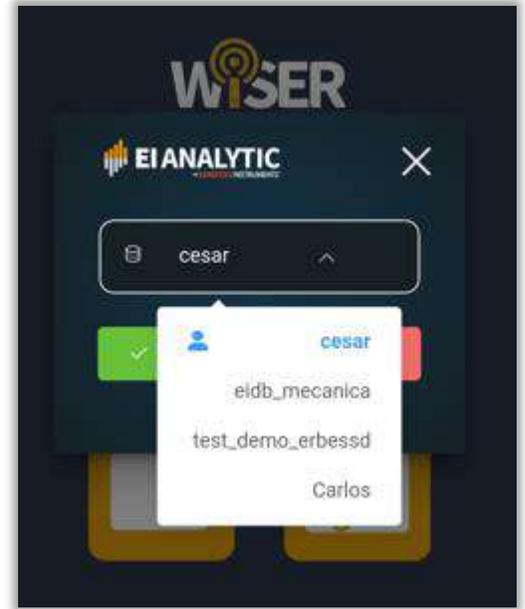
In this section of the options, are the tools or shortcuts to different parts of the application that help us to work with our database, including:

- Change database
- Machinery
- Routes
- Phantom™
- Notifications

## 6.2.1 Change Database

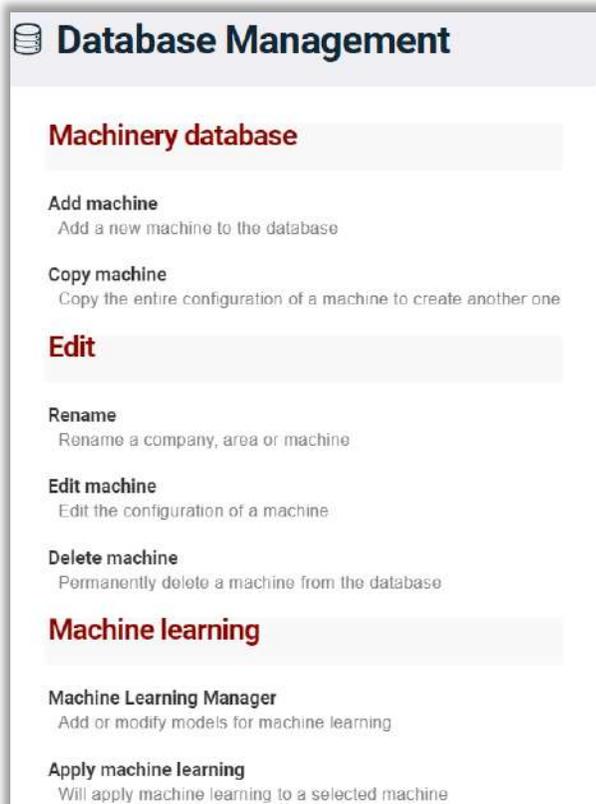


On the EI-Analytic™ screen, you can choose which database to connect to. Select **Save** to connect to the selected database, or **Disconnect** to log out and log in with another account.



## 6.2.2 Machinery

Here you can Add, Delete, Rename a machine and more.



Clicking on the "Machinery" tool opens the "Database Management" window. In this window are the following sections, described below:

**Machinery Database**

**Edit**

**Machine Learning**

These are described below.

## Machinery Database

### Add Machine

#### Add machine

Add a new machine to the database

**Machine: New Machine**

\* Company: Example + New Company

\* Area: ODS + New Area

\* Name: New Machine

Image: Upload

Alarms: General alarms - (0)

Coef: 1

Slope Int: 90

- Code: 1526 View Manual QR

**\*Company:** Name of the company where the machine is located. Choose one from the list ▼ or add a new one with +

**\*Area:** Area of the company where the machine is located. Choose one from the list ▼ or add a new one with +.

**\*Name:** Choose a name for the new machine.

**Image:** Allows you to select a picture to represent the machine. Click on 📷 to take a picture, or Upload to upload an image.

**Alarms:** Create alarms for different parameters such as

RPM, temperature, phase, etc.

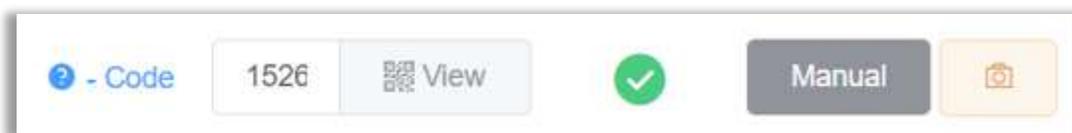
**Coef:** The machine's maintenance priority or criticality trend on a scale of 1-10 (1 for critical machines, 10 for non-essential machines).

**Slope Interval:** The time to be considered for machine severity calculations.

#### Code:

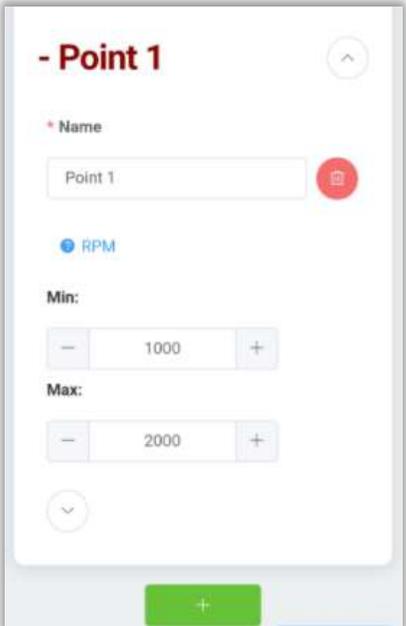
To display the unique and unrepeatable code that is generated for each machine, select View.

You can also select Manual to add it manually or QR to scan a QR code and designate it to this machine.



## Points in the machine

Analysis Points are the machine monitoring points that will be collected and analyzed. You can add more dots with , and remove one with .

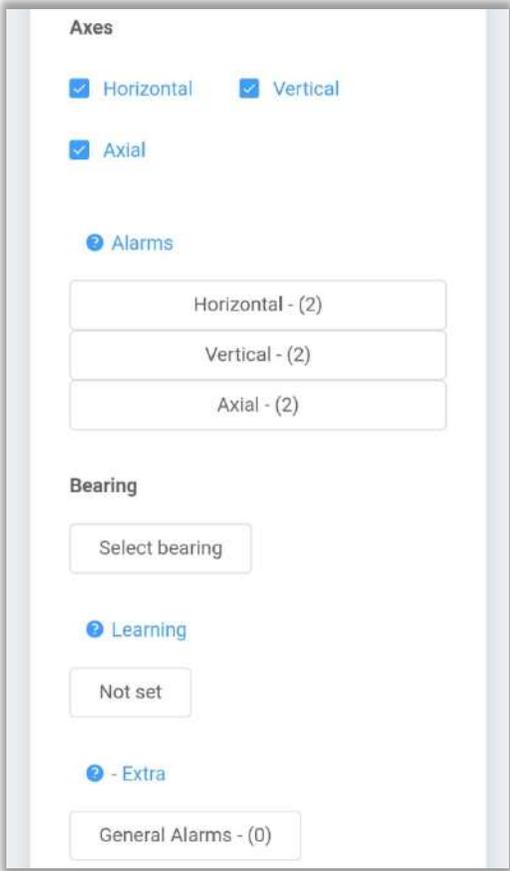


**\*Name:** The name of the analysis point.

**RPM:** Speed range in which the machine normally operates.

Click  to see more point configurations.

In the additional configurations, we find the following:



**Axes:** Allows you to activate  or deactivate  the measurement axes.

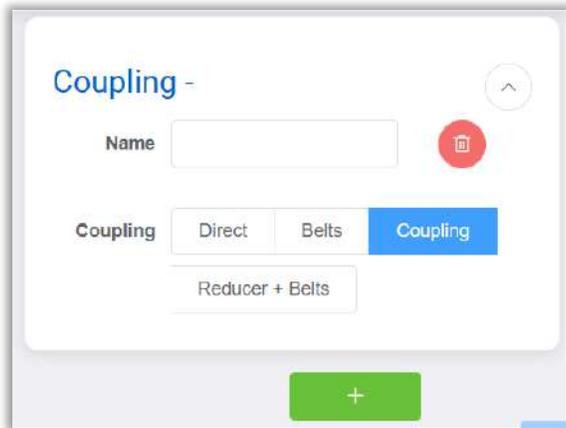
**Alarms:** Allows you to add severity alarms to the axes, this process will be discussed later.

**Bearing:** Allows you to add a bearing at the analysis point.

**Learning:** Add a previously created machine learning model. It will be shown how to create this model on the **Machine Learning** section.

**Extra:** Create alarms for different parameters such as RPM, Temperature, Phase, etc.

Select  to add a coupling.



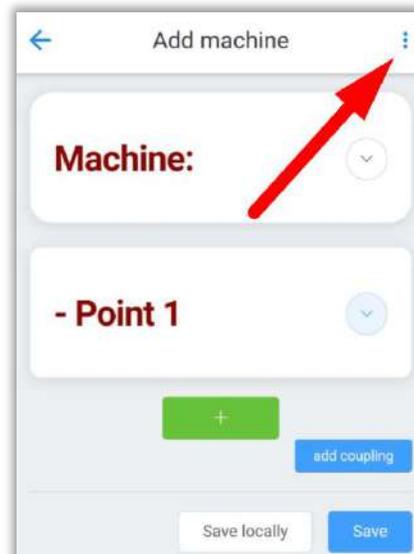
You can add more couplings with , and remove one with .

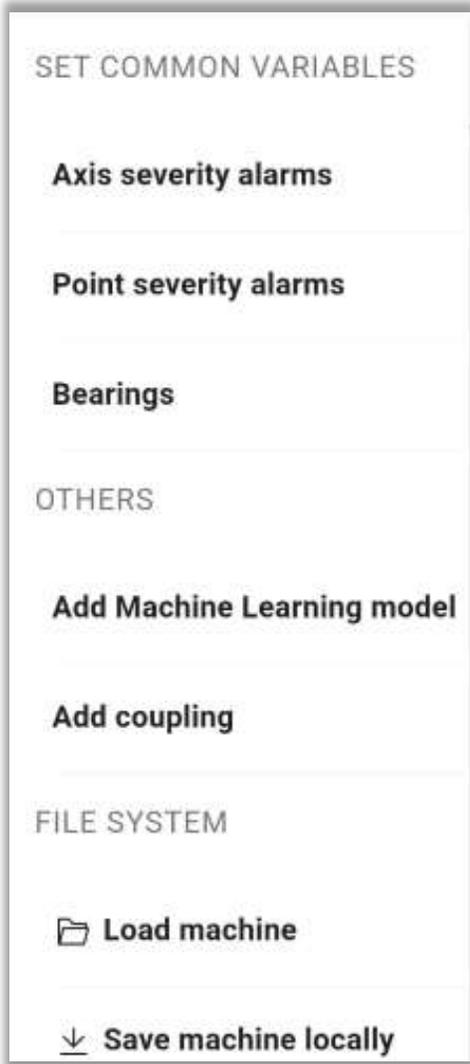
**Name:** Choose the coupling name.

In the **\*Coupling** section we can select what type of coupling the machine has. Choose the option that corresponds to your case by clicking the box.

### Machine Options

By clicking the **"Options"** drop-down menu, more options for other configurations and additional functions for your machines will be displayed.





#### SET COMMON VARIABLES

**Axis Severity Alarms:** Allows you to add a severity alarm to several axes at the same time.

**Point Severity Alarms:** Allows you to add a severity alarm to several points at the same time.

**Bearings:** Here you can find the bearing library and assign a bearing for your machine..

#### OTHERS

**Add Machine Learning Model:** Allows you to add Machine Learning models to the new machine.

**Add coupling:** Allows you to add coupling of the machine or its coupling configuration (direct, banded, coupled, etc.).

#### FILE SYSTEM

**Load machine:** Load a previously created machine, to create a new one from it..

**Save machine locally:** Save the machine locally on the device.

### *Assigning an Alarm Configuration to a Measuring Point*

Vibration alarm limits can be set for each machine, measuring point and even axis. Alarm Limits can be specified for Acceleration, Velocity, Displacement and/or Acceleration Envelope values, as desired.

Severity alarms are ranges divided into 4 levels:



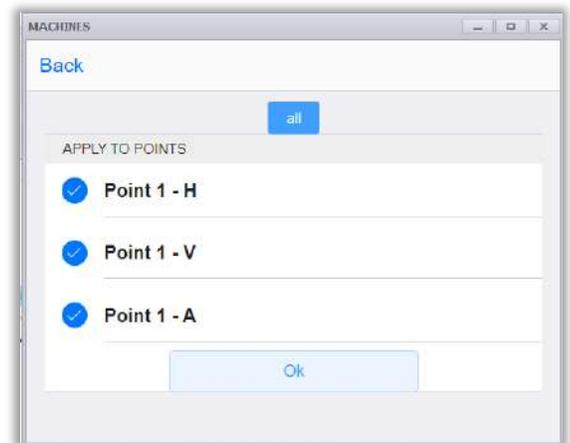
By default, the application takes the **ISO-10816** values and sets the machine as **Class II**. There are 2 default severity alarms, *velocity - CLASS II*, and *acceleration envelope - CLASS II*. **ISO-10816** has 4 machine types and divides the vibration values as follows:

SEVERIDAD DE LA VIBRACIÓN DE ACUERDO A LA ISO 10816							
MÁQUINA		CLASE I	CLASE II	CLASE III	CLASE VI		
Velocidad de la Vibración Vrms	in/s	mm/s	Pequeña < 3.7kW-5HP	Mediana < 373kW-500HP	Grande con cimentación rígida	Grande con cimentación suave	
	0.01	0.28	Excelente				
	0.02	0.45	Excelente				
	0.03	0.71	Excelente				
	0.04	1.12		Bueno			
	0.07	1.80		Bueno			
	0.11	2.80	Satisfactorio				
	0.18	4.50	Satisfactorio				
	0.28	7.10	Insatisfactorio				
	0.44	11.2	Insatisfactorio				
	0.71	18.0	Insatisfactorio				
	1.10	28.0	Inaceptable				
	1.77	45.0	Inaceptable				

[Click here to learn more about the ISO-10816.](#)

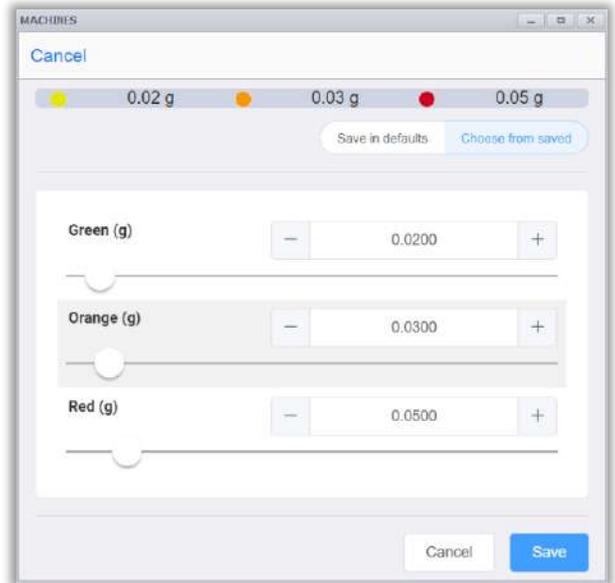
By clicking on the "**Axis Severity Alarms**" button under "**Options**" you can choose the axis to which you want to apply your alarms and then select the parameter to be measured.

**1- Select the axis** – Choose the axis to which an alarm will be assigned through this window. All points of the current machine will be displayed.



**2- Select the parameters** – You can edit an alarm with , delete it with , or add a new one as offset and acceleration with .

**3- Set limits** – Yellow, Orange, and Red alarm limits can be entered manually, and their values adjusted with the and buttons  and  with the bottom bar.

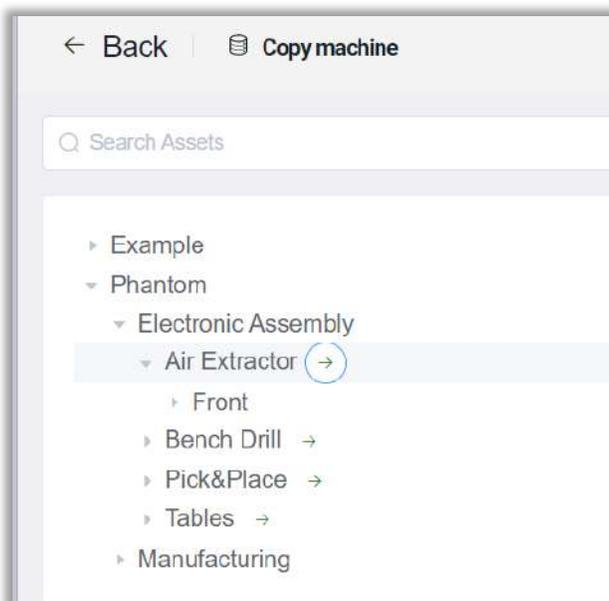


**4- Save the alarm (optional)** – Identify the limits of your parameter and to reuse this alarm at another point save it with the "**Save in defaults**" button. Create a group name and the name of the alarm to be able to find it easily.

## Copy Machine

### Copy machine

Copy the entire configuration of a machine to create another one

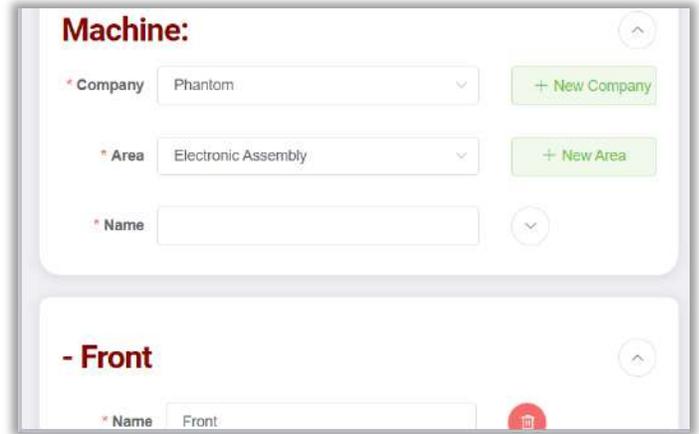


This feature allows you to copy the configuration and points of a previously created machine.

Expand the database tree with and select the machine you want to copy and with the  symbol the information of that machine is transferred.

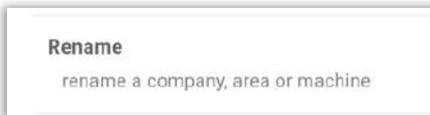
The only empty space will be the name of your new machine.

However, it is possible to change some specific aspects of the copied settings.



## Edit

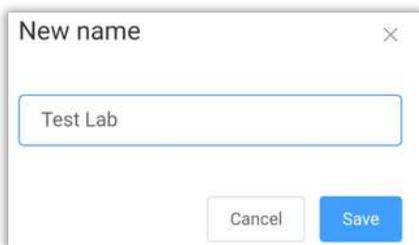
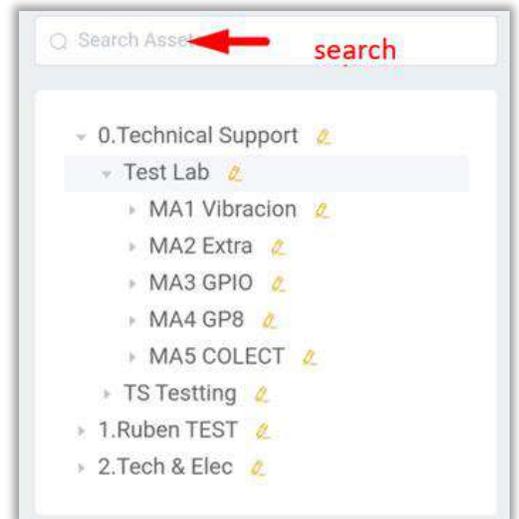
### Rename



This option will allow you to rename any element of the machine tree (except for the axis).

Any re-nameable element will appear with the icon  next to its name.

Expand the tree with the button  or enter the name in the search engine and click  to rename the section.



Type the new name and click  to finish and save, or click  to cancel the process.

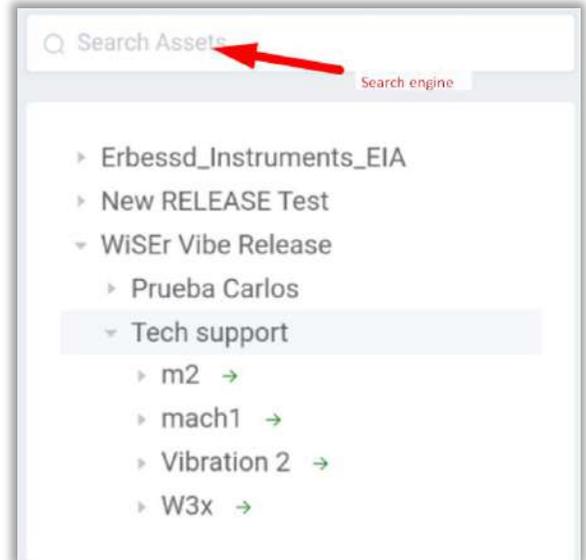
## Edit Machine

### Edit machine

Edit the configuration of a machine

Select this option to change the configuration, alarm, bearing, etc. of a machine in your machine tree.

Expand the tree with the button or enter the name in the search engine and select the machine to edit with the button .



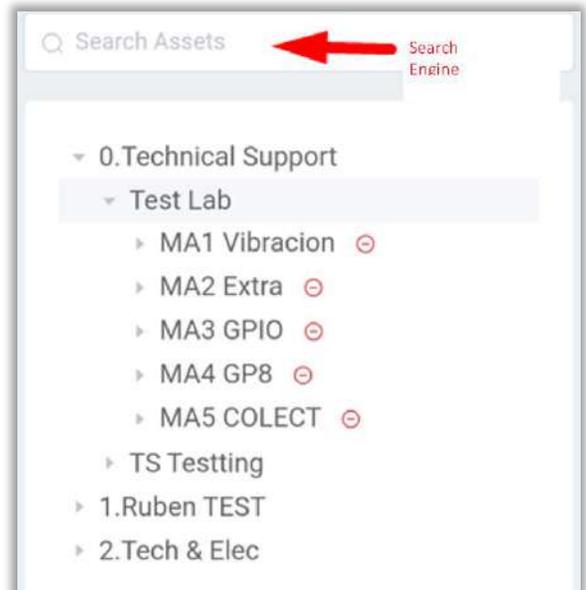
## Delete machine

### Delete machine

Permanently delete a machine from the database

This option allows you to select an element from the machine tree and **permanently** delete all its information.

To choose the element to delete expand the database tree with ▶ or use the search engine, then just click on the button  button next to the name.



# Machine Learning

## Machine learning Manager

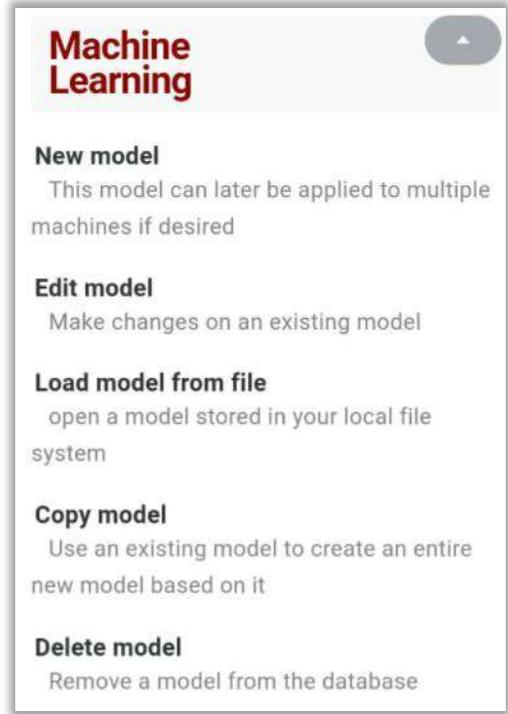
### Machine Learning Manager

Add or modify models for machine learning

Machine Learning will help you implement severity alarm models. The software will learn from the behavior of your machine with data contained within the database.

Choose a number of days to analyze and the software will suggest new severity alarms with respect to the analyzed data.

Machine Learning works through models that act as templates to be applied at different points. These models can be organized through groups and with names for each one.



- **New model**



**\*Group:** Create a new group with  or choose one from the list with .

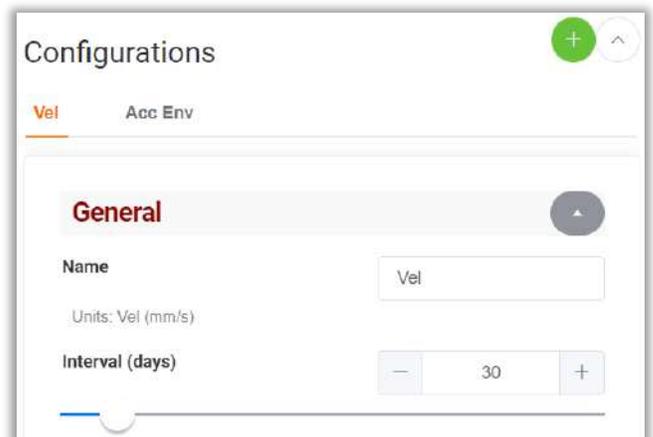
**\*Name:** Choose a name for the model.

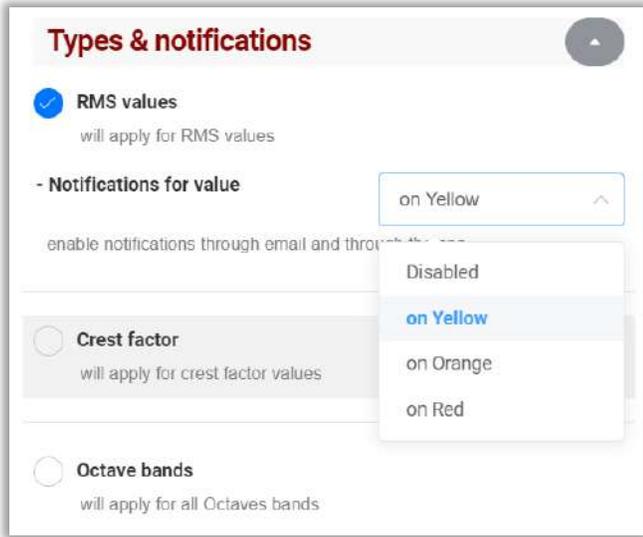
## Configurations

By default, you will find Velocity and Acceleration Envelope. Add new parameters by pressing the  button.

**Name:** Parameter's name.

**Interval (days):** Interval of days used to calculate the model.





Now choose which notifications you want to receive regarding the values that are generated in the Model. You can choose to have the software alert for the RMS, Crest Factor and Octave Bands values. For each of them it is possible to determine whether the alert will be for the yellow, orange and red color values.

**Note:** Now it is only possible to receive alarms for the RMS value.

**Axes:** select the axis that will be affected by the model. By default, the three axes will be selected.

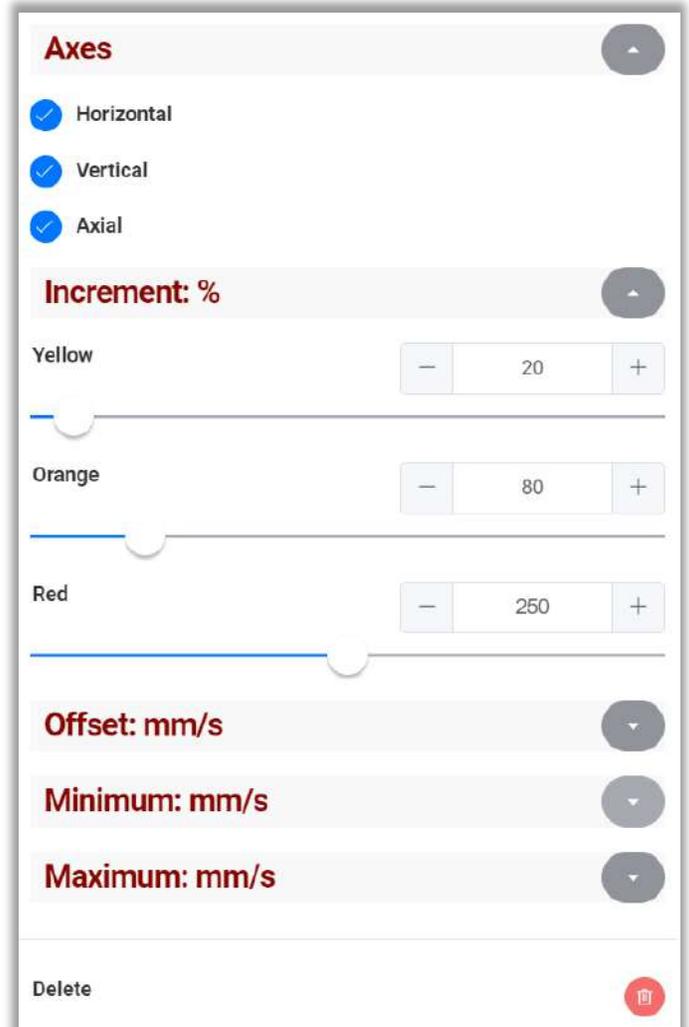
**Increment: %:** Allows you to choose a percentage value that will be applied to the highest measurement found within the selected range of days.

**Offset: mm/s:** Add a fixed value in mm/s to add to the percentage increased in the previous section. These two values are added together to generate the new severity alarm.

**Minimum: mm/s** y **Maximum: mm/s:** These are values that the user knows are acceptable. The software takes it as a reference for not placing alarms within that range.

To **delete** all the settings and the current parameter;

press the button 

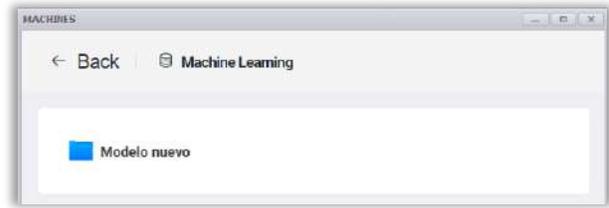


- **Edit model**

In the "**Edit Model**" menu you can review all the created Model groups to search and modify a specific model.

When you choose a Model, the configuration window from the previous section will open.

Once you are satisfied with the changes, click on "**Create**" and the changes will be saved for that specific model.



- **Copy model**

Copy the settings from one Model to a completely new one. This is to keep the features of one model and when creating a new one, make minimal modifications to it.

- **Delete model**

Delete a Model from your database completely and **permanently**.

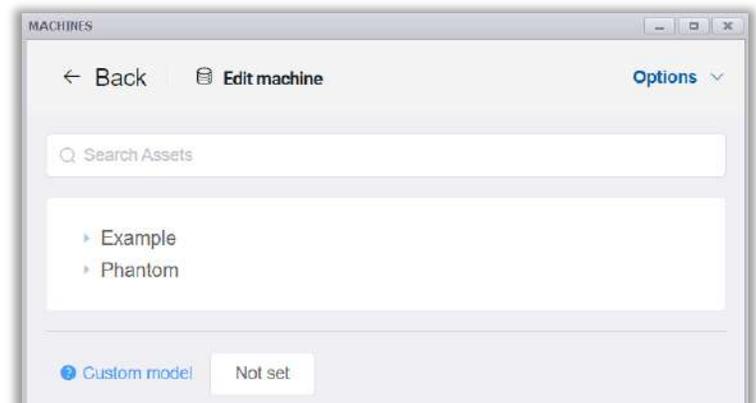
- **Apply Machine Learning**

In the "**Apply Machine Learning**" menu you can assign a Model created in the "**Machine Learning Manager**" menu.

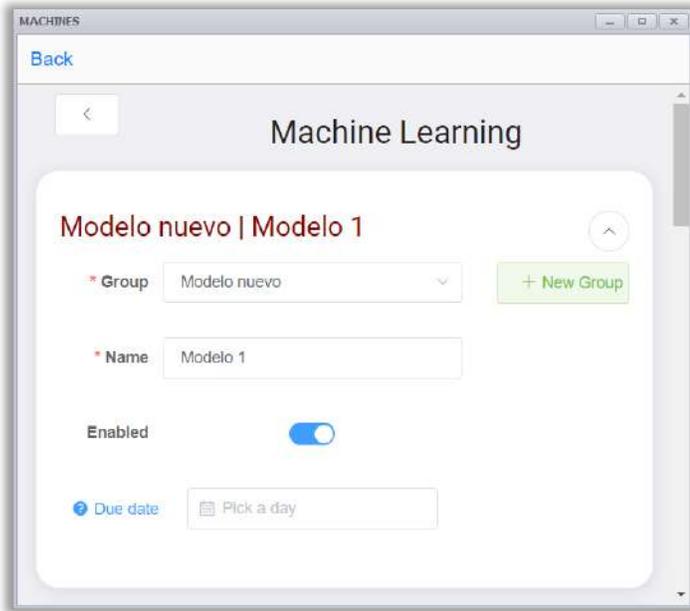
First, assign the model with the lower button

labeled  .

This will open the list of groups where you can search for the Model you need.



Once you have chosen the Model, the configuration window is displayed, allowing you to make any specific changes.

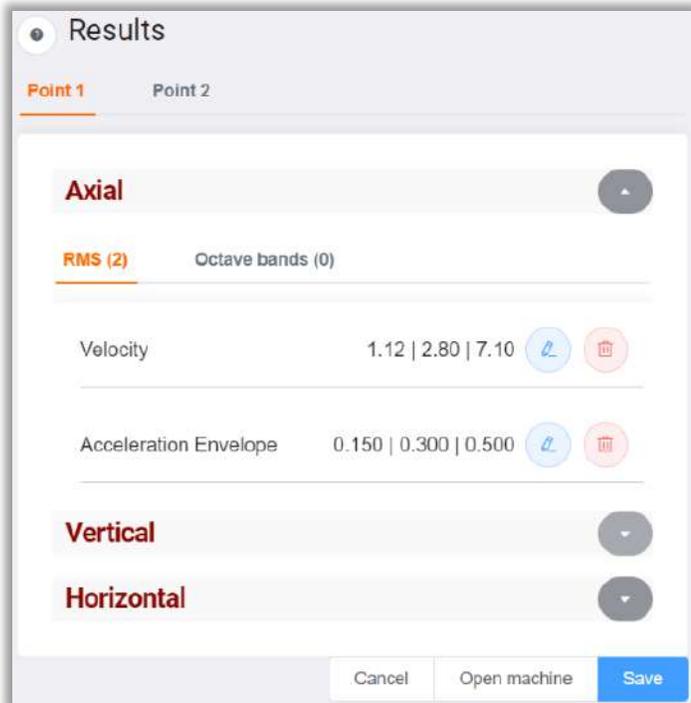


Then choose which points of this machine you will apply to the model and press the button **Calculate ->**.

Now in this window you will see the option: **Pick a day**. With this option you can choose from which day the analysis interval for Machine Learning will start analyzing the information.

If left empty, the current day will be used as the starting point for the model.

Once the configuration is ready, click on "**Select**" and you'll be returned to the first window. Select the machine to which you want to apply the model with button.

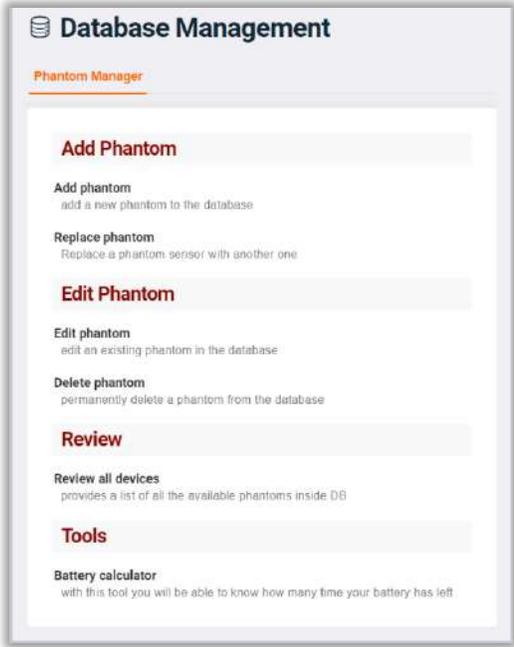


The next window will show the calculated values according to the model applied to the point. The displayed values can be modified per axis.

Once you are satisfied with the severity alarm value click on **Save**.

Now, the new severity alarm will be saved to the point.

# 6.2.3 Phantom™



The Phantom™ section allows you to manage the sensors in the database. There are 4 sections:

- Add Phantom**
- Edit Phantom**
- Review**
- Tools**

## Add Phantom

### Add Phantom™



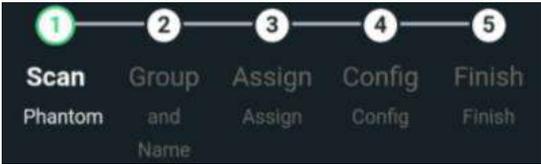
Manually add a sensor in to your database using



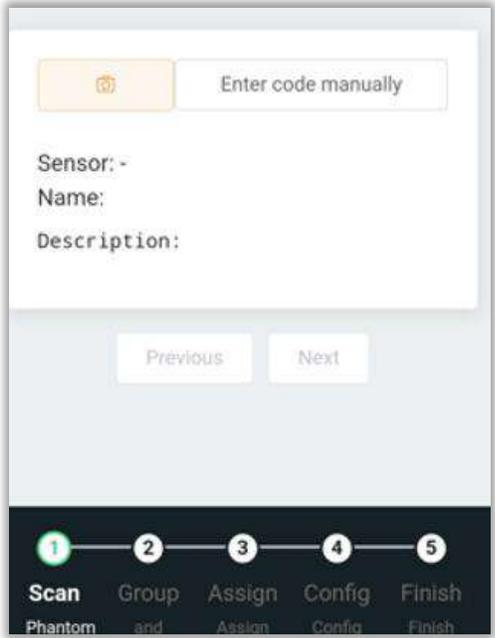
or scan de QR code with



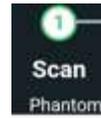
The registration process, described below, is divided into 5 steps:



The steps are described below.



## Step 1. Scan Phantom™

A screenshot of a registration form. At the top left is a camera icon. To its right is a text input field containing 'Enter code manually'. Below this are three labels: 'Sensor: -', 'Name:', and 'Description:'. At the bottom are two buttons: 'Previous' and 'Next'.

Click on  and type the 11-digit Phantom™ code as is shown on the picture to the left.

Click  to add it or click  to cancel.

To scan the QR code, click on  and center the code in front of the camera.

**NOTE:** This is the recommended option to add the Phantom™ to the database

A screenshot of the registration form after a QR code has been scanned. The camera icon is now orange. The text input field contains the code '18-EINAG2HR-189270895'. The 'Sensor:' field is populated with 'G2 High Range Accelerometer (Triaxial)'. The 'Name:' field is empty. The 'Description:' field contains the text 'Sensor is already in use'. The 'Previous' and 'Next' buttons are at the bottom.

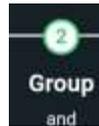
Once the code is registered, the general information of the sensor is displayed on the screen.

**NOTE:** If the sensor is already registered in another database, you will not be able to register it in yours. The following text will appear:



Select  to go back, or  to continue.

## Step 2. Groups and name

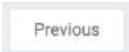


**\*Group:** Choose a group from the list with  or create a new one with the button .

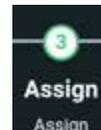
**\*Phantom name:** Select a name for your phantom. You may choose any name you like.

**Description:** you will see the type of sensor that you're adding. It's not necessary to change this.

**\*Interval:** Select the interval data collection expressed in minutes. (Some sensors may not have this option).

Select  to go back, or  to continue.

## Step 3. Assign a sensor into the database

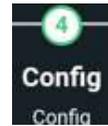


Register the sensor at an analysis point in your database. Find it by expanding the database tree with , or by typing the point name with .

Select the point by clicking the checkbox .

Select  to go back, or  to continue.

## Step 4. Axis and Alarms configuration



### Axis configuration

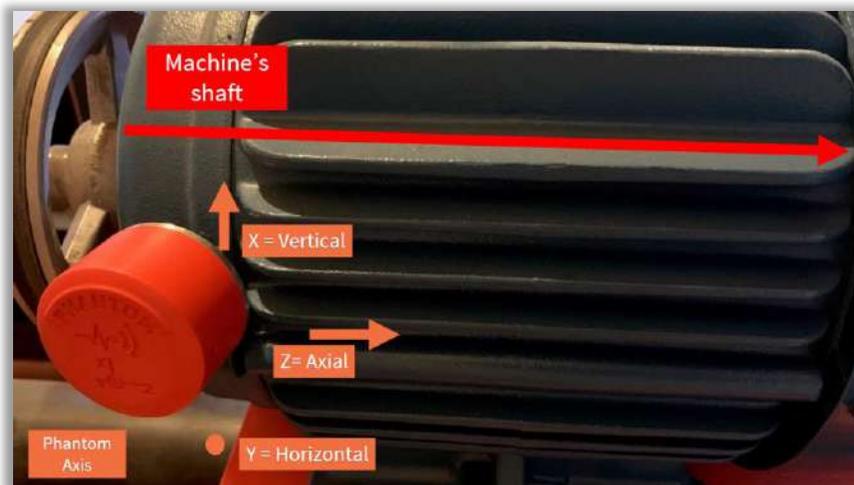
X axis	Horizontal
Y axis	Vertical
Z axis	Axial

It is important to correctly configure the axes of your Phantom™ sensor to obtain reliable data.

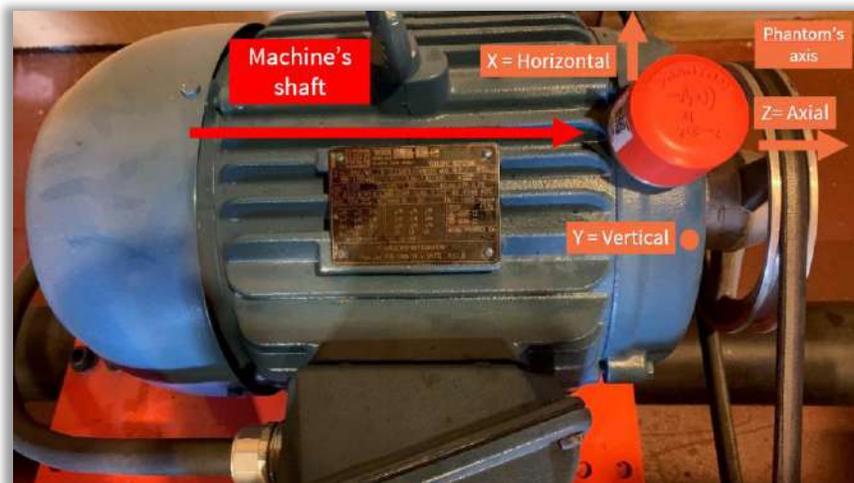
Expand the box with  to choose the configuration corresponding to each axis. **How should I configure my axes?**

- **Axial:** Phantom™ axis that is perpendicular to the machine axis.
- **Vertical:** Phantom™ axis, which is transverse to the machine axis.
- **Horizontal:** Phantom™ axis, which is pointing to the horizon with respect to the machine axis.

### Example 1:



### Example 2:

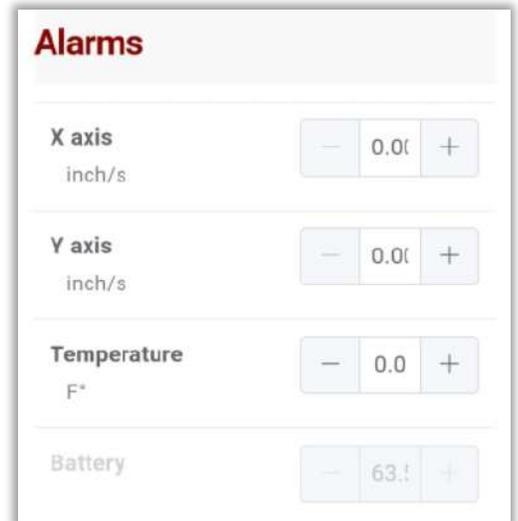


## Set alarms

Here you can set an alarm for each of the sensor axes and for the **internal temperature** of the Phantom™ sensor (**must not exceed 85°C or 185°F**).

Click on  or  to decrease/increase the alarm value. The battery alarm is not configurable.

If the configured value is exceeded, the application will send a notification. Example:

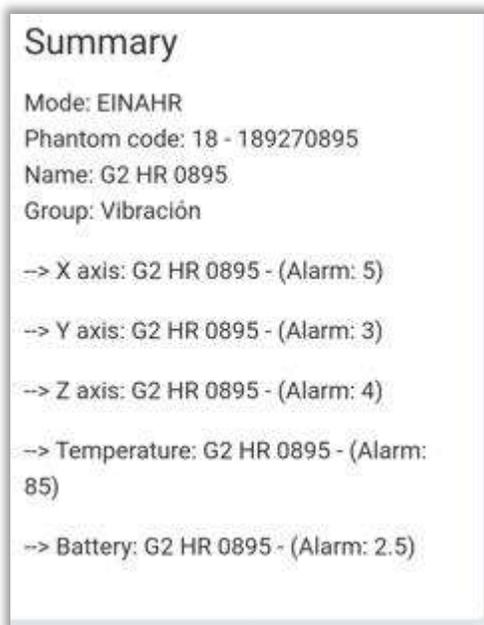
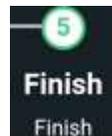


The 'Alarms' configuration screen displays four rows, each with a label, a unit, and a numeric input field with minus and plus buttons. The settings are: X axis (0.00 inch/s), Y axis (0.00 inch/s), Temperature (0.0 F°), and Battery (63.0).

You will see more about notifications in the section **Notification**.

Select  to go back, or  to continue.

Step 5. Final



Lastly, a summary of the previous steps is displayed:

- The type of Phantom™ registered.
- The serial number.
- The name of the sensor.
- To which group it belongs.
- The alarms for each of the axes and the temperature.
- The battery alarm.

Select  to go back, or  to finish and save the Phantom™ in the database.

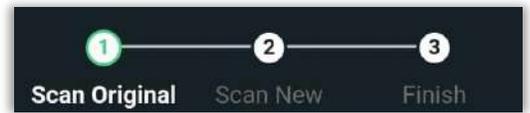
When correctly added, the following message will be displayed:



## Replace Phantom™



With this tool you can replace a Phantom™ sensor with another one. Click on the tool to open the wizard. The wizard is divided into three steps, described below:



### Step 1. Scan Original



Choose the original sensor you want to replace.

Click  to scan the Phantom™ code or enter the code in

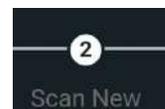


Once you register it, you will see the sensor information, sensor type, sensor name, where it is registered, battery and internal temperature.

Click  to go back or in  to continue.



### Step 2. Scan New Sensor





Choose the new sensor, the one that is going to replace the original one.

Click  to scan the Phantom™ code or enter the code in

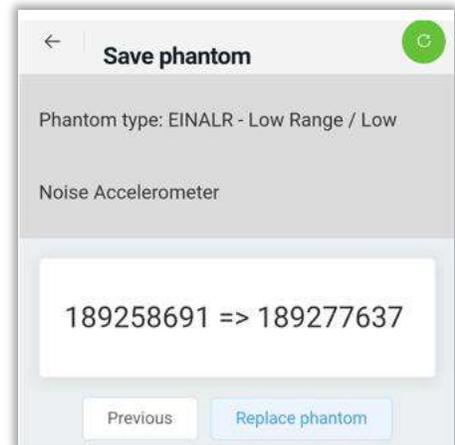
Click  to return or click  to continue.

*Step 3. Finish*



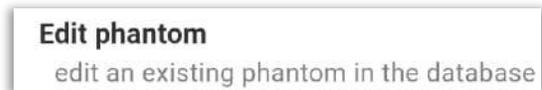
Click on  any of the 3 steps to restart the process.

Click  to go back or click  to confirm and replace the Phantom™.

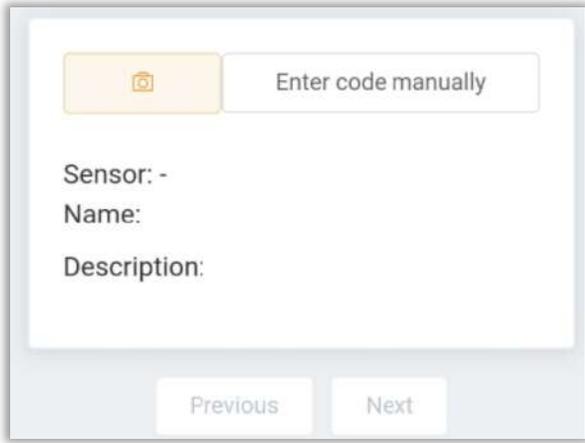


### **Edit Phantom**

### **Edit phantom™**



This menu allows you to modify settings of the Phantom sensor such as data sending interval, assignment point, axis configuration, etc.



Type the sensor ID in  or scan the QR code with  to make changes.

If the sensor is not in your database then it will allow you to add it to a machine.

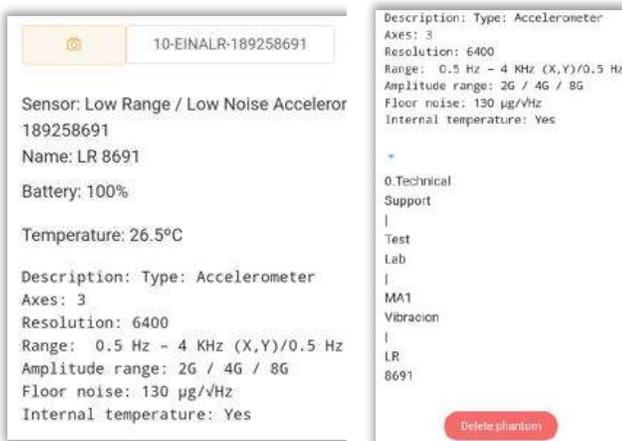
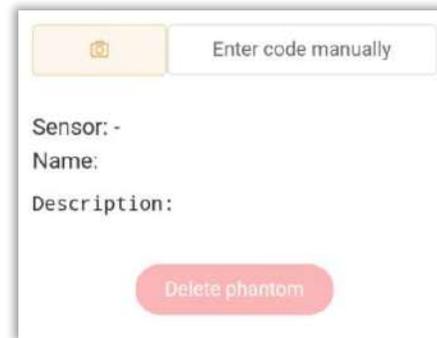
### Delete Phantom™

#### Delete phantom

permanently delete a phantom from the database

With this tool we can permanently delete a Phantom™ sensor from our database. Click on this button to open the delete manager.

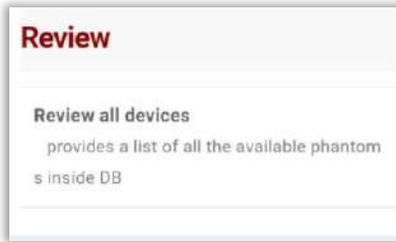
Click  to scan the Phantom™ code or enter the code in .



When you select the Phantom™ you will see its general information.

Click  to delete the Phantom™.

## Review



### Review all the devices

This tool leads you to the devices in your database, as explained in section [Devices](#).



## Tools

### Battery calculator

#### Battery calculator

with this tool you will be able to know how many time your battery has left

Allows you to calculate the approximate battery life of your phantom sensor.



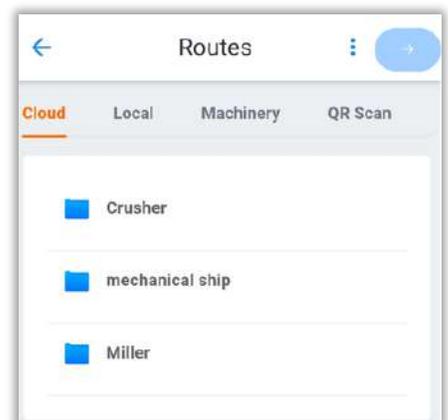
### Accelerometer

Choose the type of phantom sensor, (current options are phantom expert, ATEX and Gen2) and select it by checking the box .

## 6.2.4 Routes

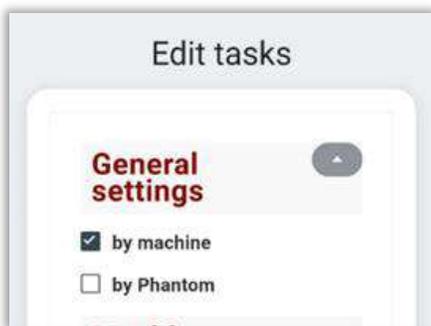
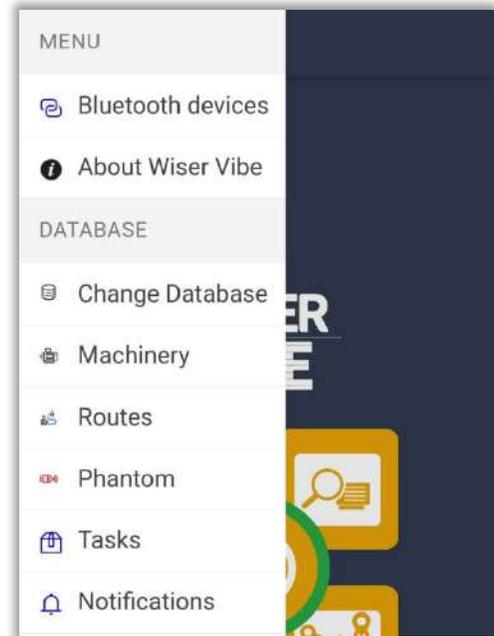


Access the "routes" section, with the options described in section [Routes](#).



## 6.2.5 Tasks

The **Tasks** section allows you to customize your notifications according to your requirements. Choose values or ranges of values on a machine, point or phantom to send notifications.



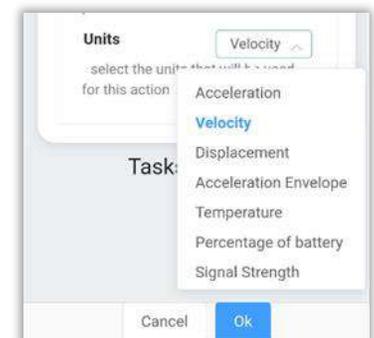
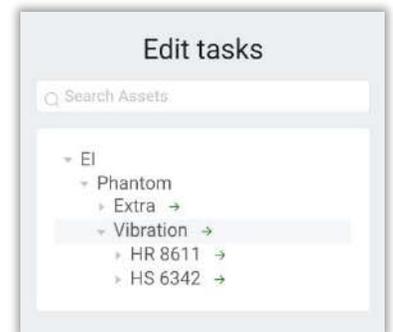
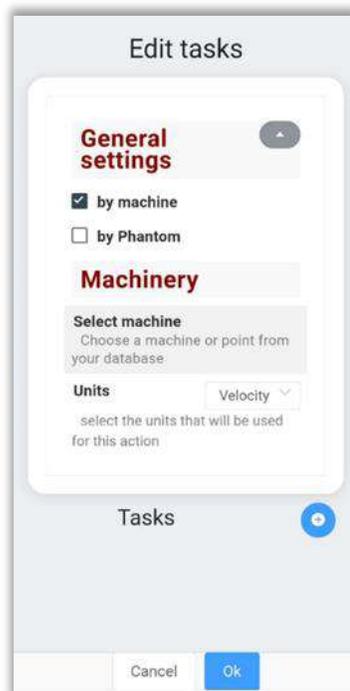
You can add a new **Task** with the button  and the **Edit tasks** tab will open, displaying the following options for assigning notifications:

- **by machine**
- **by Phantom**

When choosing **by machine**, the **Machinery** section offers the following settings:

**Select machine:** Select a machine or point for task assignment.

**Units:** Select the units that will be used for the tasks.



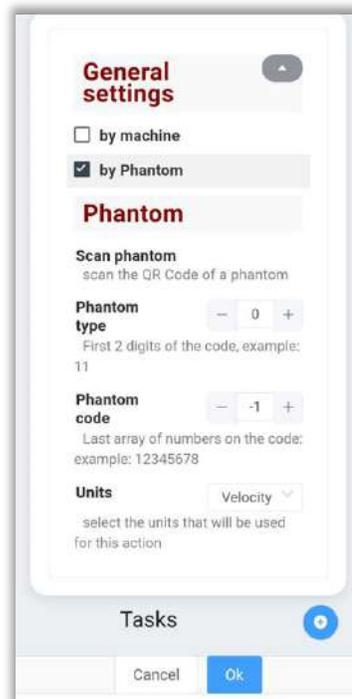
When choosing **by Phantom**, the **Phantom** section offers the following settings:

**Scan Phantom:** Scan the QR code of the Phantom sensor and it will fill in the **Phantom type** and **Phantom code** information automatically.

**Phantom type:** Must be the first 2 digits of the sensor ID, for example: 11.

**Phantom code:** Must be the last 9 digits of the sensor ID, for example: 189241234.

**Units:** Select the units according to the ones previously selected. Example: Root Mean Square, Max/min value, etc.



Once you have finished assigning the notifications to a machine or Phantom, add the task-specific settings with the button .

In this section you will find the following settings:

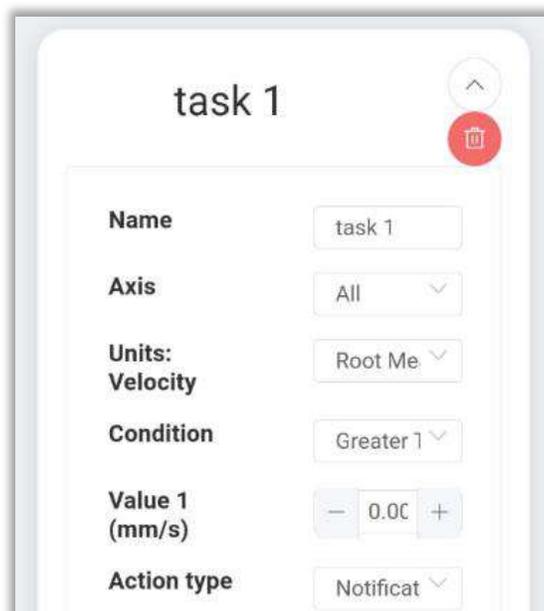
**Name:** Change the name of the task.

**Units:** Select the units according to the ones previously selected. Example: Root Mean Square, Maximun value, etc.

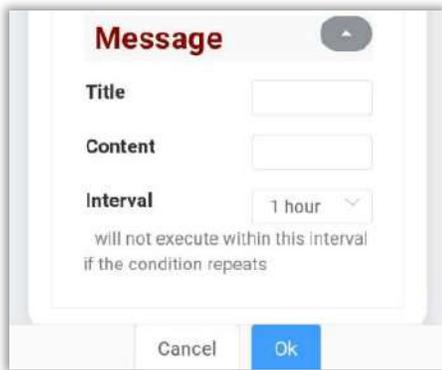
**Condition:** Choose the condition for which the notification will be sent regarding the configured value. Example: Greater than, equal, etc.

**Value:** Value that will indicate the sending of notifications.

**Action type:** The way in which the notification will be sent.



In the **Message** section you can customize the content of the notification.



**Title:** Add the title of the message.

**Content:** Add the message content.

**Interval:** Configures the interval at which this message will be sent. Only one notification will be sent during the same interval even if the condition is repeated.

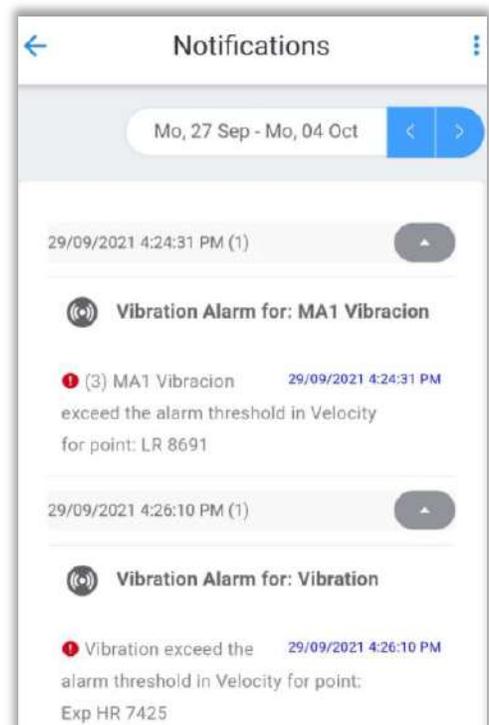
Save the task with the button 

## 6.2.6 Notification

Access the notifications from your EI-Analytic™ database, such as sensor alarms, inactivity warnings, etc.

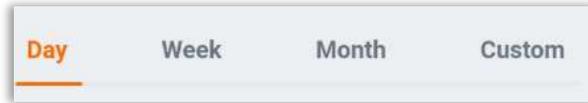
At the top is the machine name where the sensor is registered, the alarm reason, the analysis point, the date and hour, and the velocity values for each axis.

Below, are the numeric values recorded on each axis.



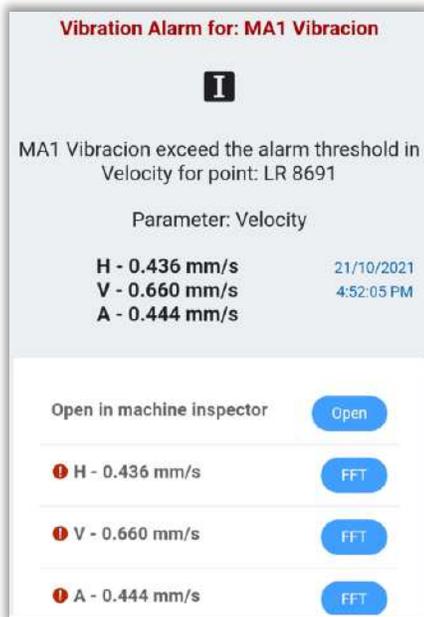
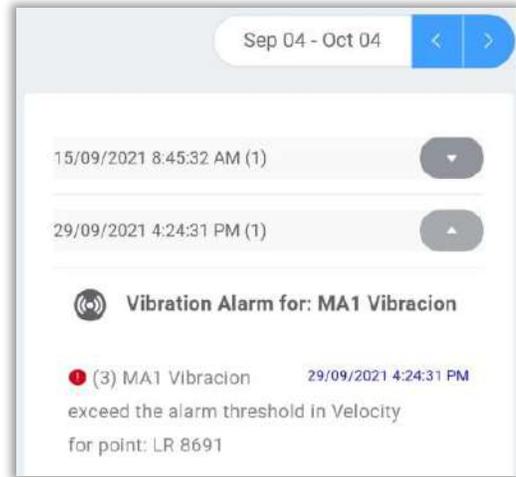


Click on the top box to change the way you see notifications. Here, you can choose from four options to set the date:



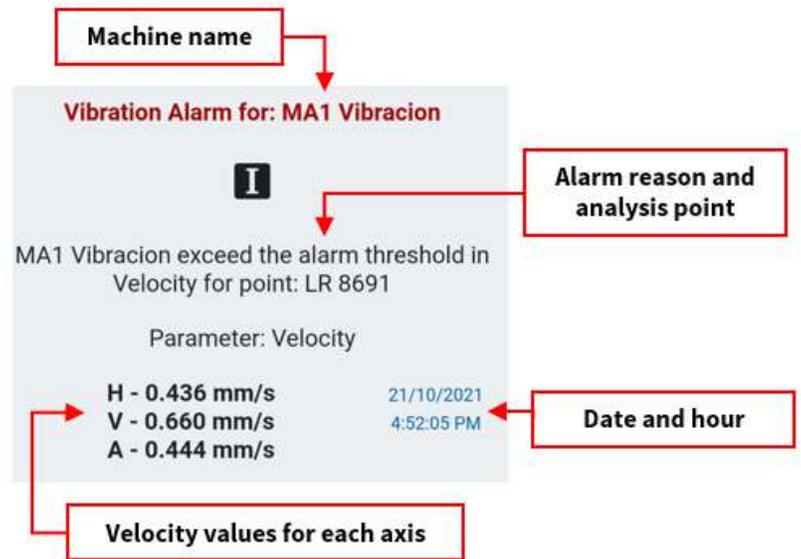
Select by number of days (day), weeks (week), months (Month) or by entering a specific date (custom).

Once you choose the way to observe the time, you can switch between the time period with the buttons . Also, you can use  to collapse or hide a notification, and  to re-display it.



You can click on any notification to open the details and other tools.

At the top we would see the machine name where the sensor is registered, the alarm reason, the analysis point, the date and hour, and the velocity values for each axis.



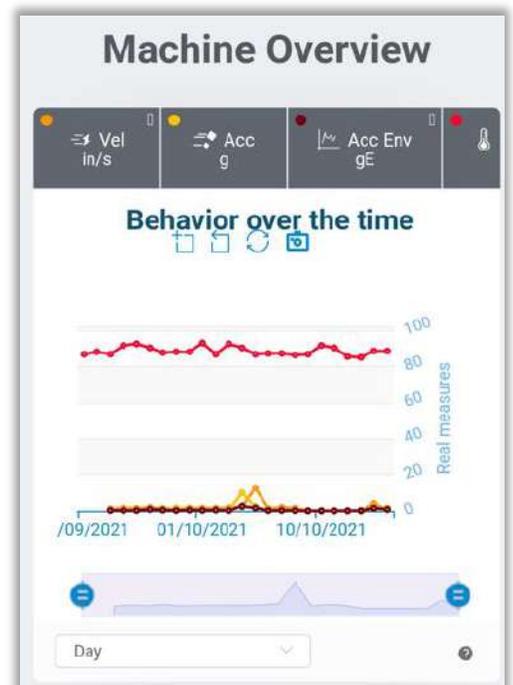
Open in machine inspector	Open
<b>H - 0.436 mm/s</b>	FFT
<b>V - 0.660 mm/s</b>	FFT
<b>A - 0.444 mm/s</b>	FFT

Below, we will see the numeric values recorded on each axis.

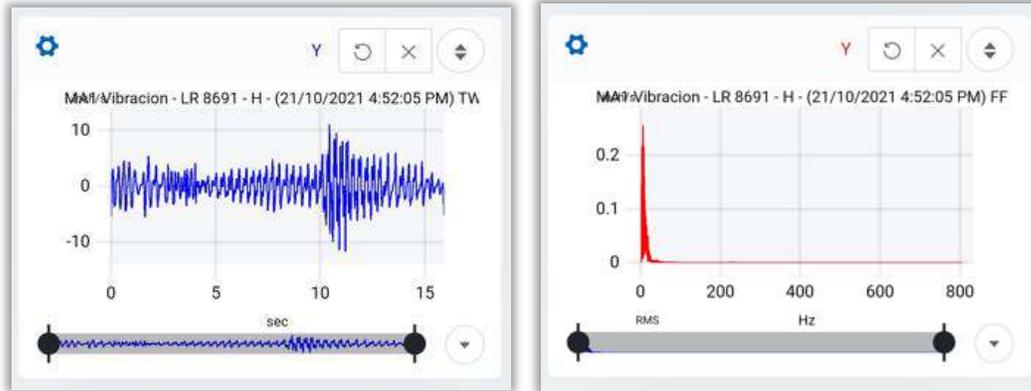
Press **Open** to open the machine inspector.

Press **FFT** to open the FFT and TWF for the axis measure.

Click on **Open** to display the **Machine Overview**, with all the tools described on section: [Overview](#)

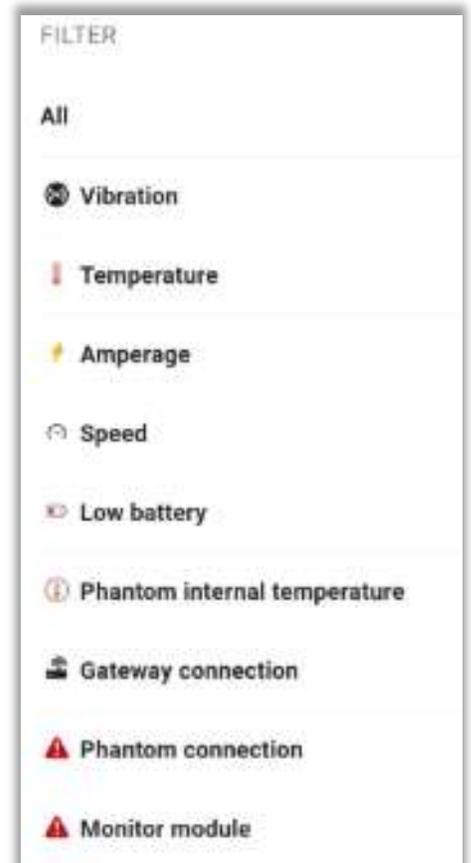
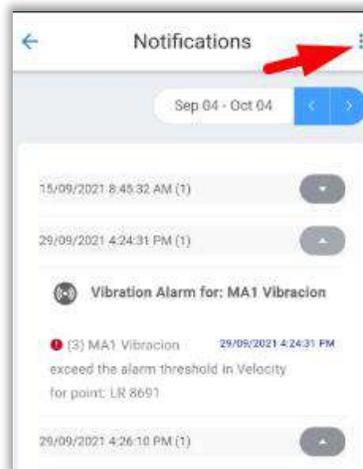


Press **FFT** to **open the FFT and TWF** for the axis measure, to display the same tools described on the sections: [TWF Tools](#) and [FFT Tools](#).



### Notification filters

In the upper right corner of the notifications screen, select  to filter which notifications you want to see.



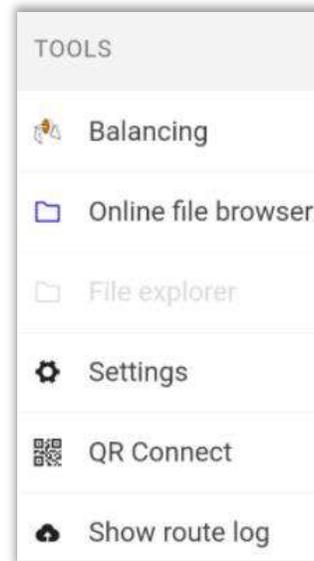
All

Shows All notifications.

-  **Vibration** Displays notifications only related to Phantom™ vibration sensors.
-  **Temperature** Displays notifications only related to Phantom™ temperature sensors.
-  **Amperage** Displays RPM notifications, for the Phantom™ speed sensor
-  **Speed** Shows RPM notifications, for the Phantom™ speed sensor.
-  **Low battery** Displays notifications from Phantom™ sensors that have low battery level.
-  **Phantom internal temperature** Notifications related to the internal temperature of the sensors.
-  **Gateway connection** Displays when a Gateway does not connect for an extended period.
-  **Phantom connection** Displays when a Phantom™ sensor is not connected for an extended period.
-  **Monitor module** Displays when a monitor module is not connected for an extended period.

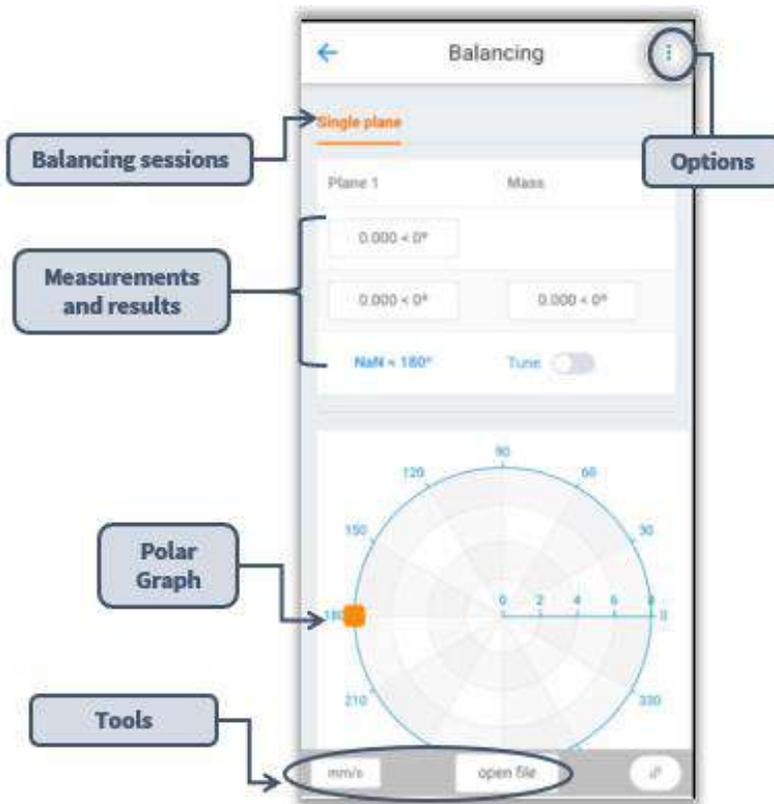
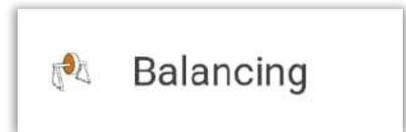
## 6.3 TOOLS

In the last section, called **TOOLS**, are 4 options that will help with the management of your data.



### 6.3.1 Balancing

With the balancing tool, you can perform single plane dynamic balancing processes.

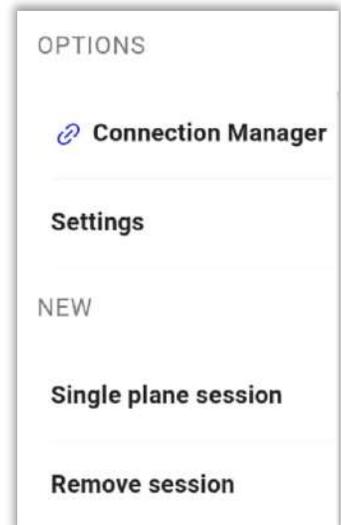
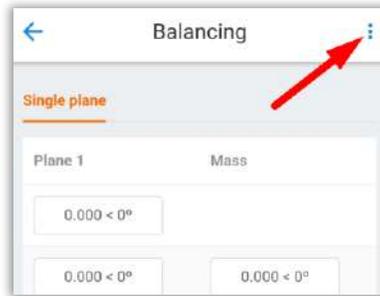


The balancing window features:

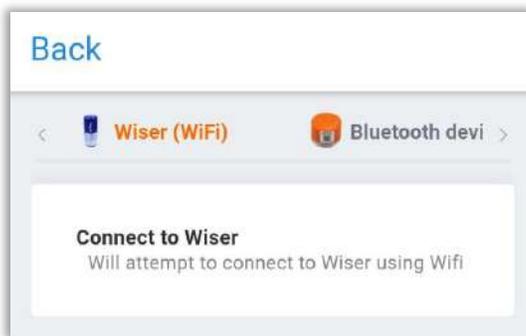
- **Options**
- **Balancing sessions**
- **Measurements and results**
- **Polar graph**
- **Tools**

## Options

In the upper right corner, we have the balancing options, click on  to display them.

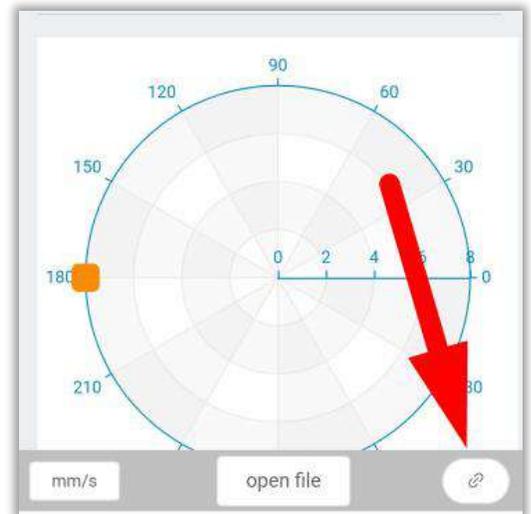


## Connection manager:

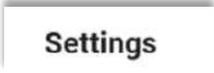


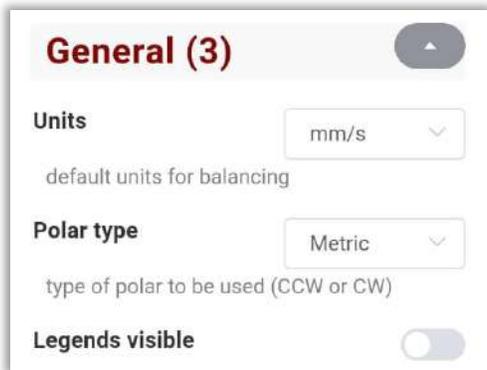
It will open the connection manager, with this you can connect to the WiSER™ 3X with the WIFI option as you saw in section: [Option 1: WiSERTM 3x.](#)

You can also access the connection manager from the main page with the button .



## Settings:

This tool  opens the balancing settings.



**General (3)**

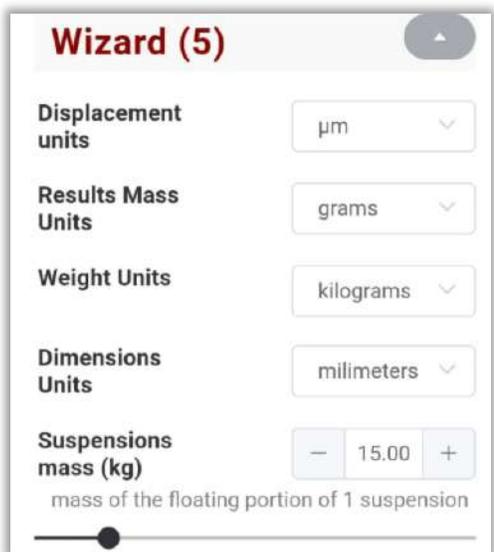
**Units**    
 default units for balancing

**Polar type**    
 type of polar to be used (CCW or CW)

**Legends visible**

### General (3)

- **Units:** Choose the default units for balancing.
- **Polar type:** Type of polar graph to be used.
- **Legends visible:** Show/hide polar plot legends.



**Wizard (5)**

**Displacement units**

**Results Mass Units**

**Weight Units**

**Dimensions Units**

**Suspensions mass (kg)**    
 mass of the floating portion of 1 suspension

### Wizard (5)

- **Displacement units:** Choose the displacement units.
- **Results Mass Units:** Choose the units of the balancing correction mass.
- **Weight units:** Trial mass default units.
- **Dimensions units:** Default dimension units.
- **Suspensions mass (kg):** Choose the soft bearing suspensions mass in kg. You can also use the bottom bar to change the value.

You can also change the units of the graph, from the main screen

with the tool .



## Add or delete a balancing session:

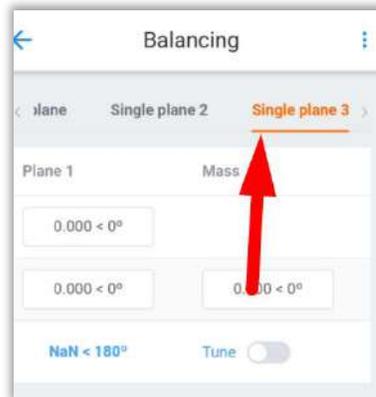
### Single plane session

By selecting this tool you can add balancing sessions in the same window (example 1).

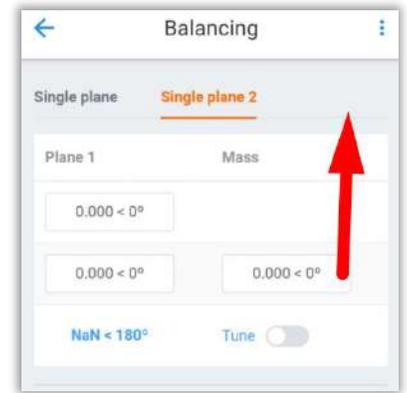
### Remove session

This tool removes a session from the window (example 2).

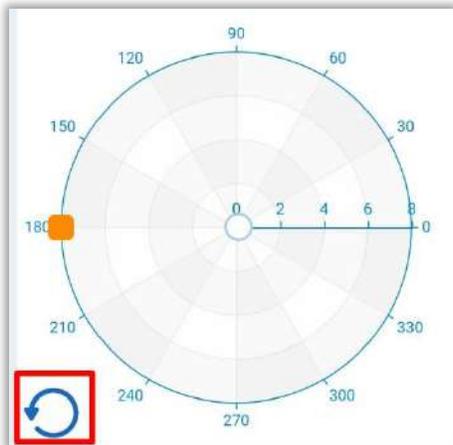
### Example 1: Add session



### Example 2: Remove session



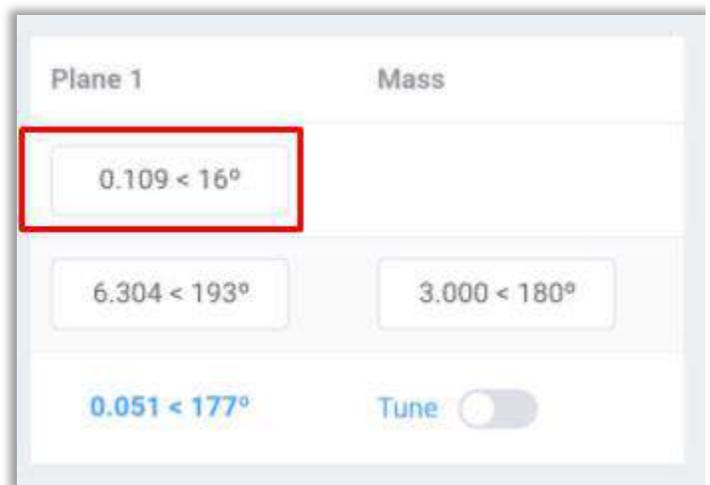
## Balancing process



For the balancing process, select the geometric rotation with

the button .

Make a first run without any test weight, and add it in the next box:



**Single plane**

Plane 1	Mass
0.109 < 16°	
6.304 < 193°	3.000 < 180°
0.051 < 177°	Tune <input type="checkbox"/>

Perform a second run with a test mass, choose the values in the red marked box , and enter the mass and angle in the box marked in green.

Below, you will see the correction mass, with the corresponding angle.

If you want to improve your roll even more, activate the tool Tune .

**Single plane**

Plane 1	Mass
0.109 < 16°	
6.304 < 193°	3.000 < 180°
0.051 < 177°	Tune <input type="checkbox"/>

Plane 1	Mass
2.725 < 15°	
1.275 < 178°	Tune <input checked="" type="checkbox"/>

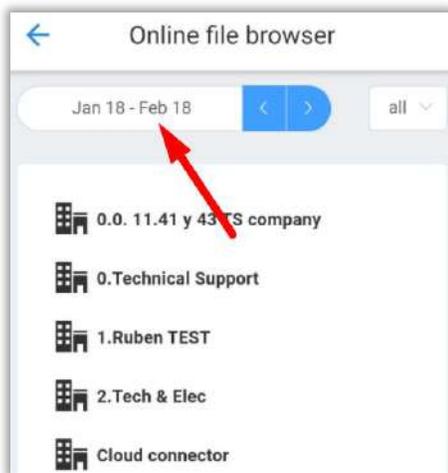
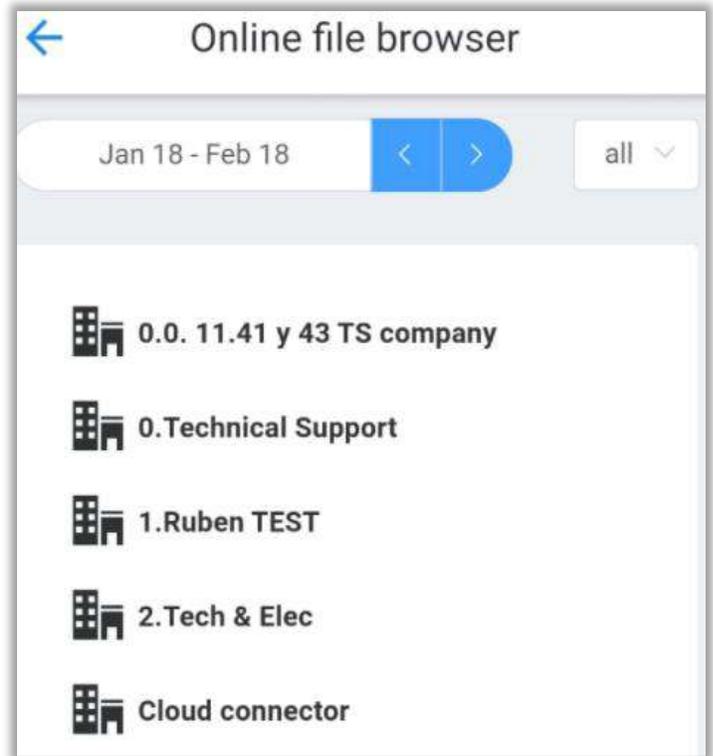
Make another run, and place it in the box marked in red.

You will see the new correction mass and the corresponding angle in the box marked in green.

## 6.3.2 Online File browser

Online browsing will allow you to view the files stored in your cloud database.

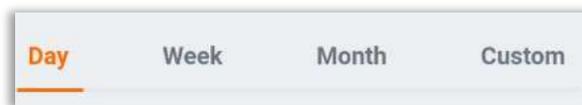
When you open it, you will see the following:



At the top, choose the tool:



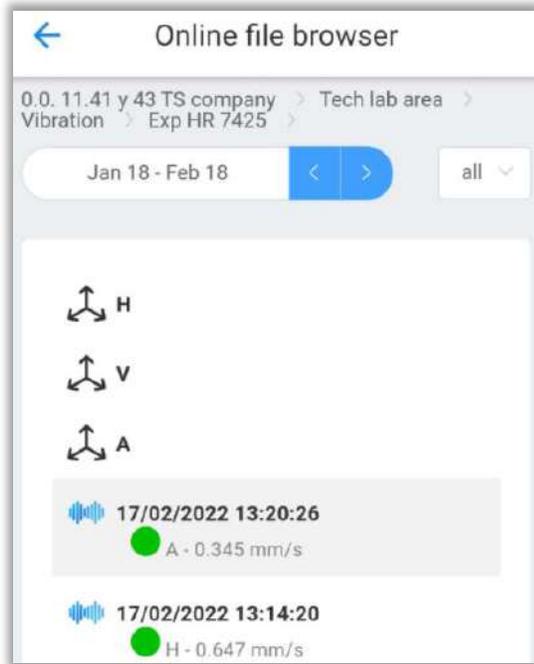
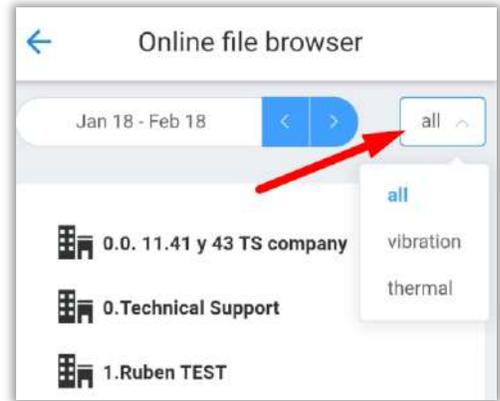
to change the way the data is displayed. Here, you can choose from four options for placing the date:



Choose by number of days, weeks, months or by entering a custom date. Once you choose the way to observe the time, you can switch between the time period with the buttons .

You can also filter the data by type of measurement with the

tool  on the upper right.

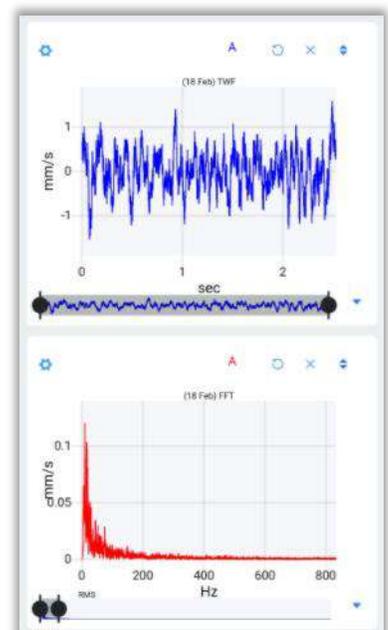
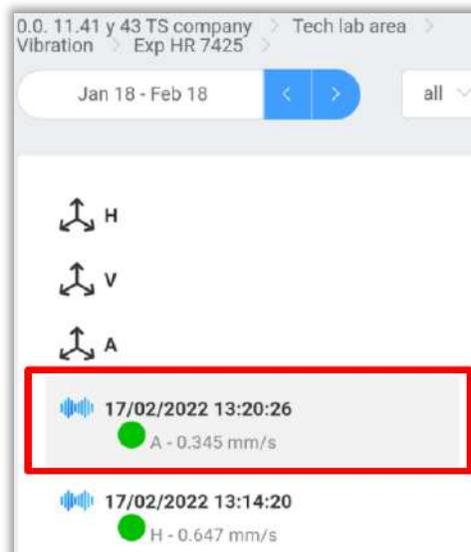


Select the company, area, machine and point where your data is located:

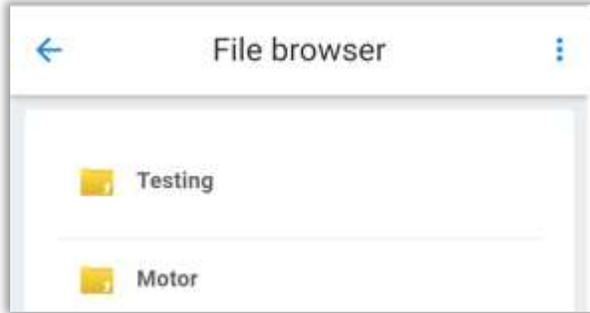
0.0. 11.41 y 43 TS company > Tech lab area > Vibration > Exp HR 7425

You will see the data at the point and/or axis level, with the date and time it was taken.

Click on the desired file to open the TWF and the FFT.



### 6.3.3 Files Explorer



Use to open the **File Browser**, with all its tools, which were described in section: [File Browser](#).

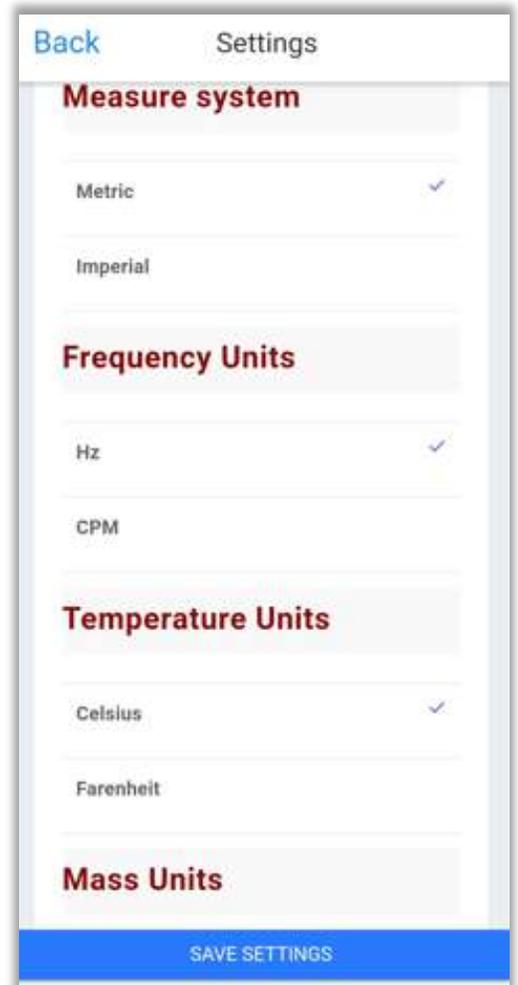
### 6.3.4 Settings

Select this tool to open [EI-Analytic™](#) account settings, these configurations will be modified both in the application and in your account.

In the same way, changing these settings from the [EI-Analytic™](#) page will modify them in the WISER™ Vibe Pro application.

As the title of each section indicates, you can change the units of the vibration measurements, choosing between metric and imperial. You can also choose the units of frequency, temperature, and mass.

Click on **SAVE SETTINGS** to save the changes.



## 6.3.5 QR Connect



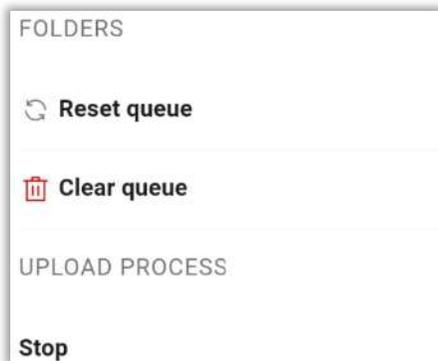
Use this tool to scan a QR code generated in DigivibeMX® to connect to the software and transfer measured files from WiSER™ Vibe Pro.

From DigivibeMX®, select the WiSER™ Vibe Connect tool to generate the QR code.

## 6.3.6 Show Route log

Use this tool to open the upload queue of the route measured files.

Here we see the .ANL files, together with the name of the machine by which they were measured and the date and time of the measurement.



At the top right corner is the Route log options. Select  to display the options.

There are 3 tools:

-  **Reset queue:** Restart the upload queue, the files that were in the process of uploading are stopped, then the process starts again.
-  **Clear queue:** Deletes all data that was in the upload queue.
- **Stop:** Stops the upload of files in process but it doesn't delete the files.