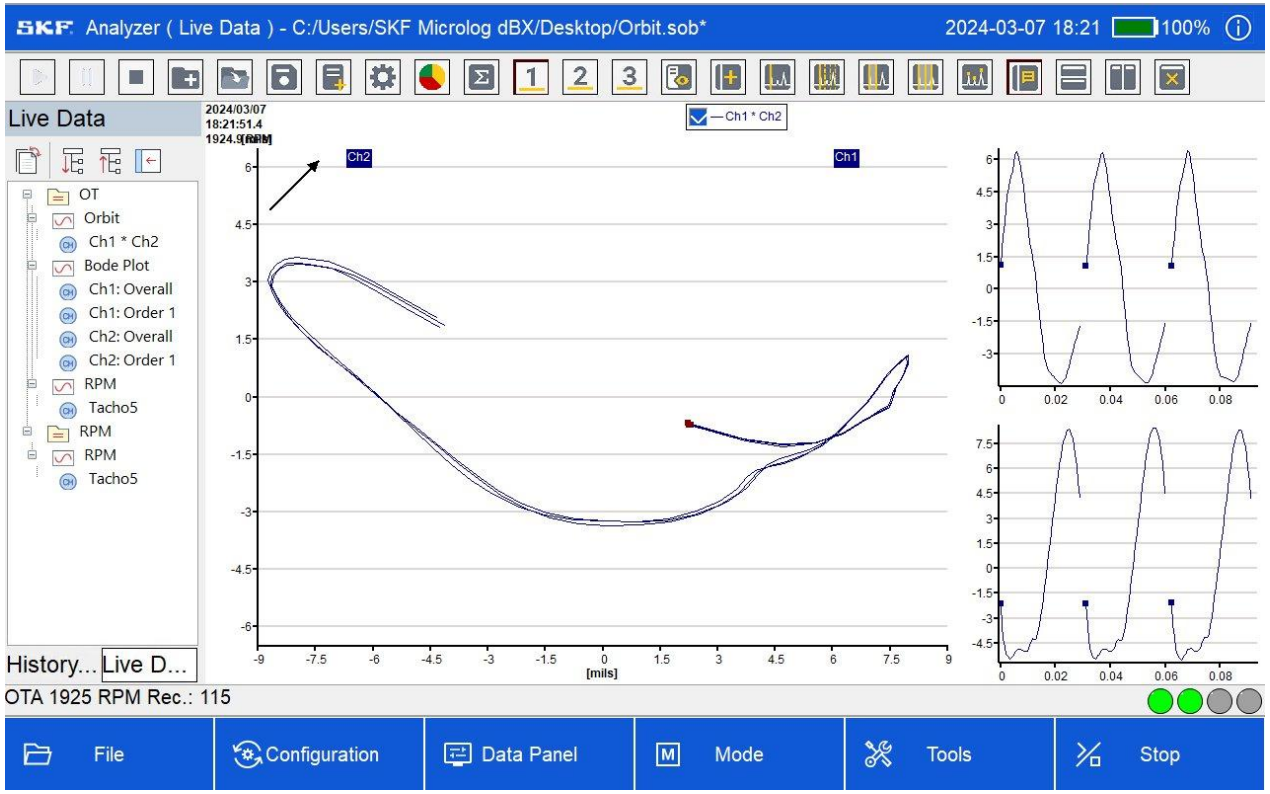
SKF Microlog Analyzer dBX - v1.x

Orbit Analysis Template

Objective

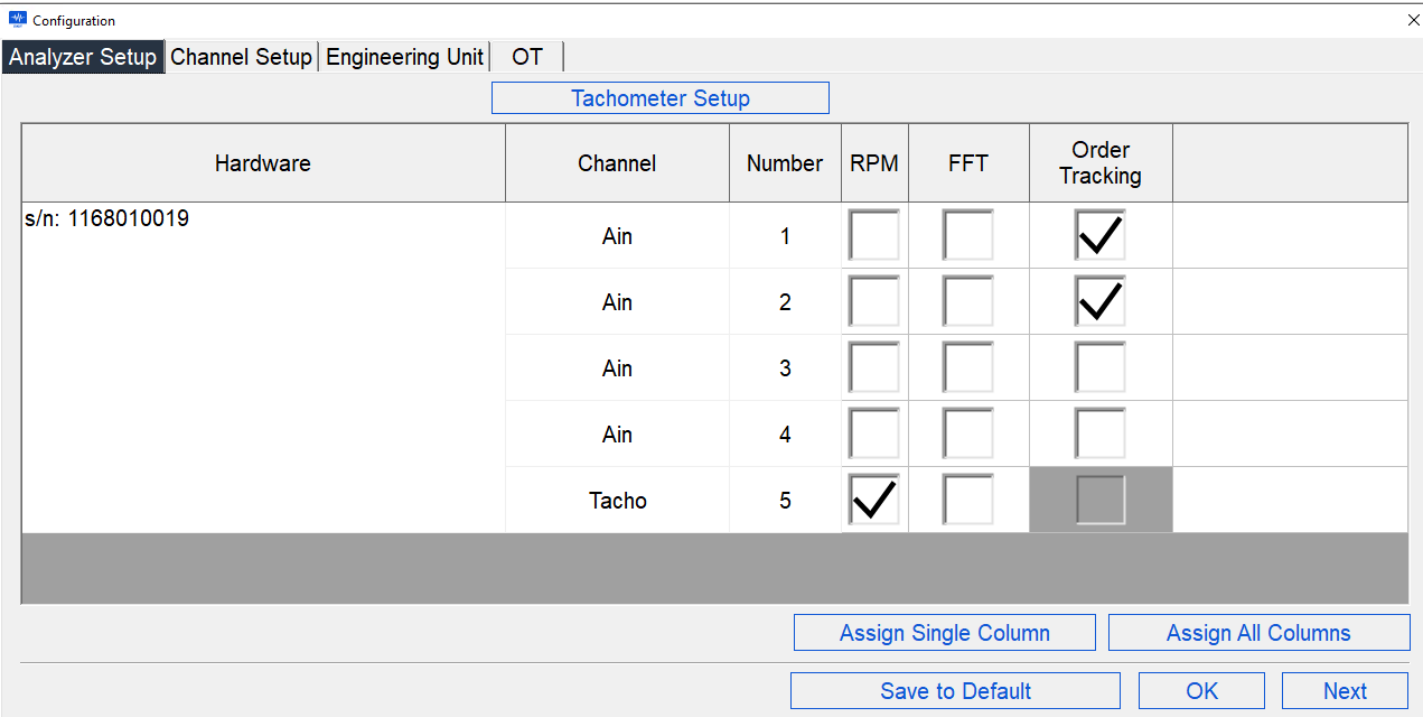
Present an overview of the orbit analysis data measurement setup for orbital analysis using SKF Microlog Analyzer dBX.

Orbit Analysis Template



With the Orbit analyzer template, visualize the rotational behavior of a rotating axis. Orbit charts are often used to diagnose faults in machines with plain bearings.

Orbit Analysis Module - Configuration



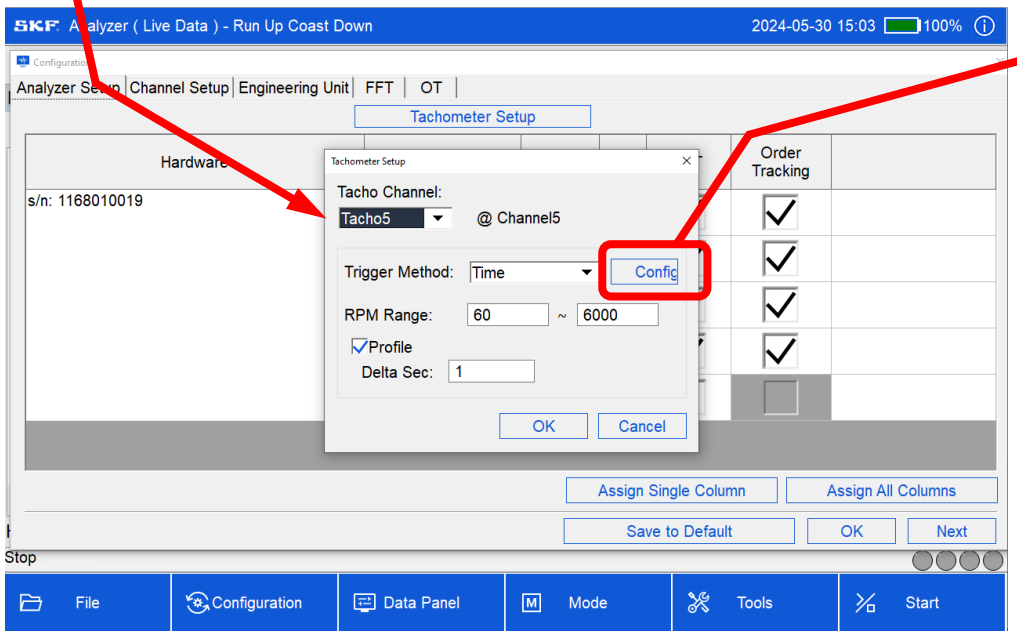
On the Analyzer configuration tab, you must select the channels to be used.

In the example in question, channels 1 and 2 were selected for order tracking and channel 5 for the tachometer.

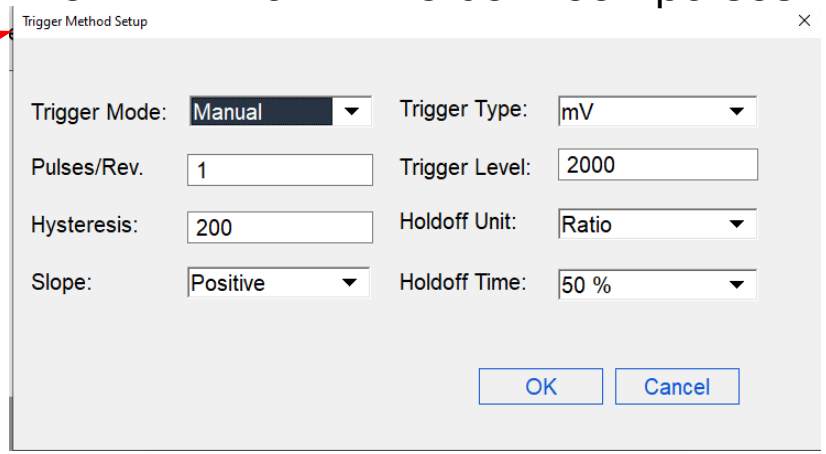
Configuration – Tachometer Setup

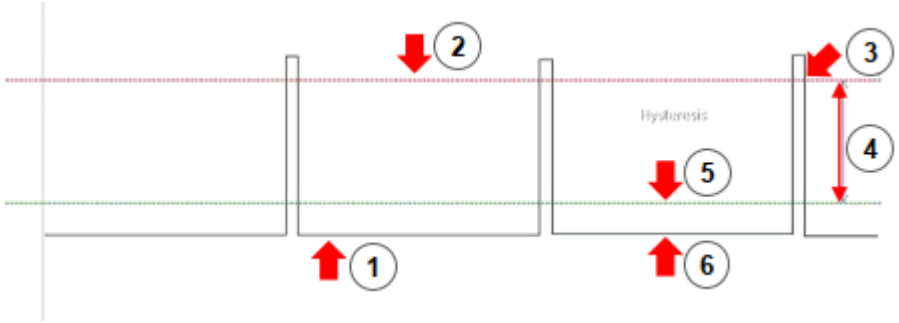
Tachometer Setup

Trigger Method
- If Tacho, use Time
- If no Tacho, use Spectrum



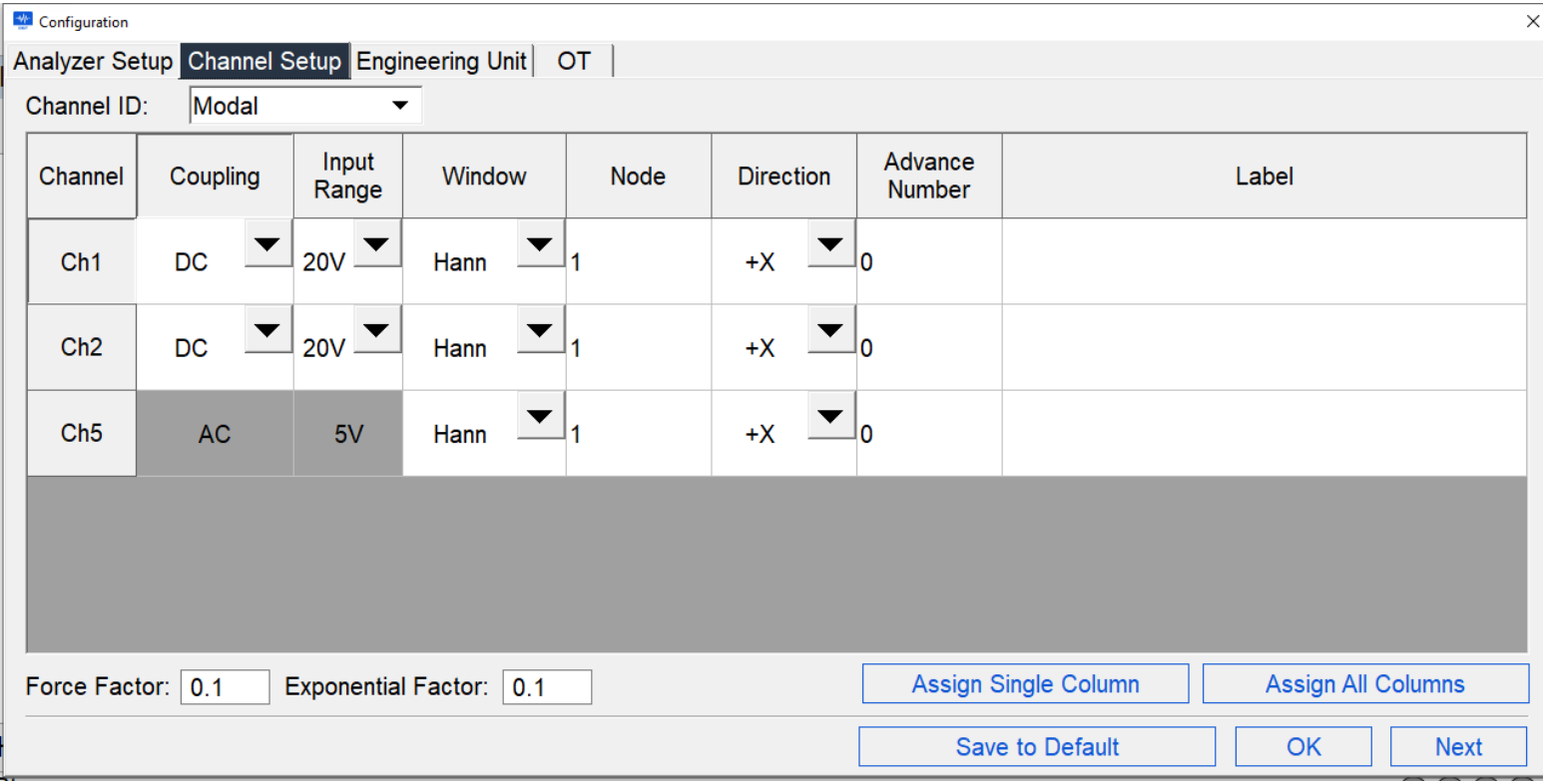
Trigger Method Config
- Trigger Mode – use Auto for TTL
- Trigger Type (mV or %)
- Hysteresis (mV) defines minimum drop required
- Holdoff Unit (msec or ratio)
- Holdoff Time - minimum time between pulses





1. Tacho signal
2. Trigger level
3. Trigger point (Slope)
4. Hysteresis
5. Hysteresis level
6. Reference level

Orbit Analysis – Channel Configuration

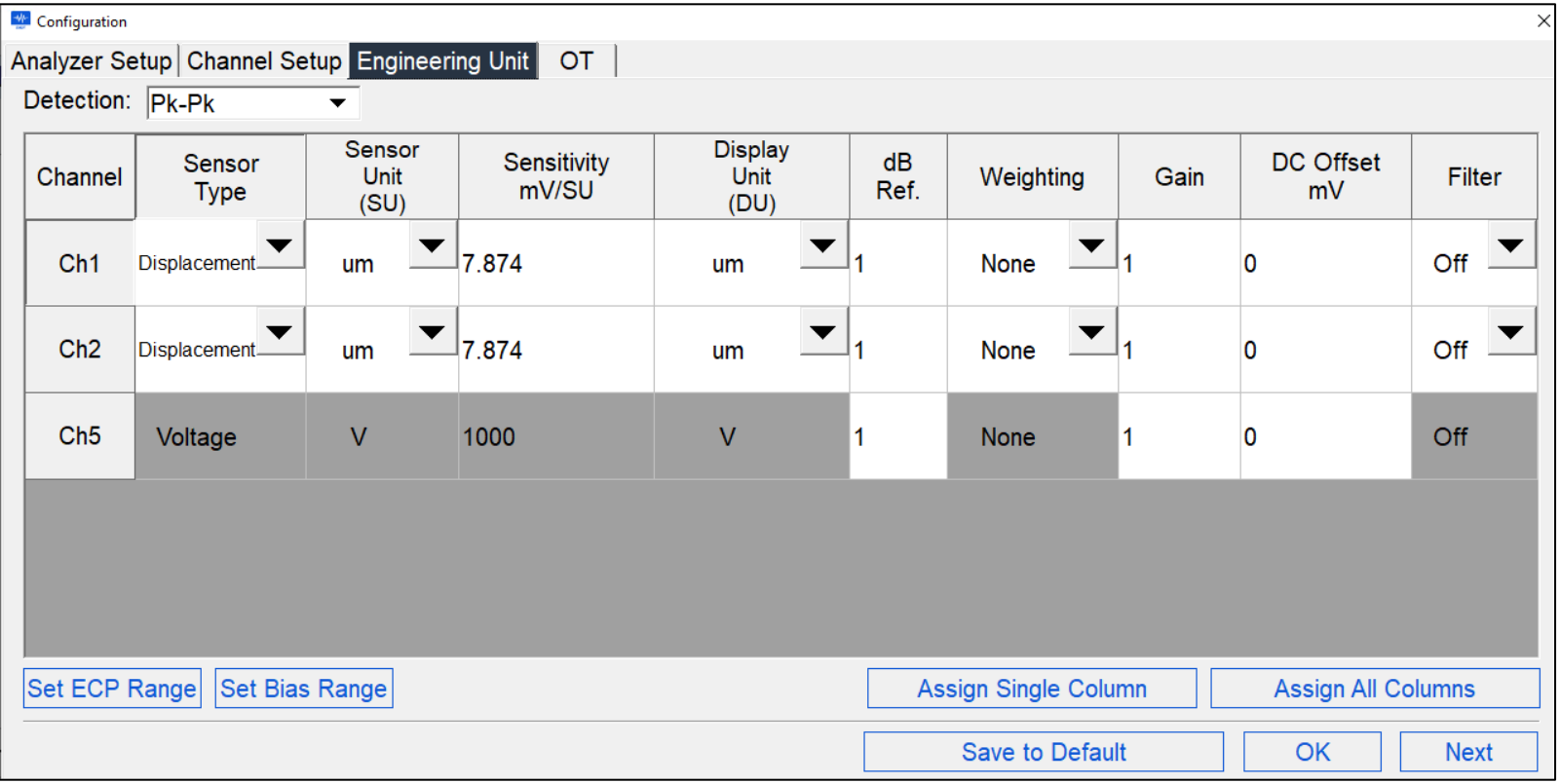


On the second tab, you need to configure the previously selected channels.

The required fields are the coupling type, the sensor input range, and the windowing.

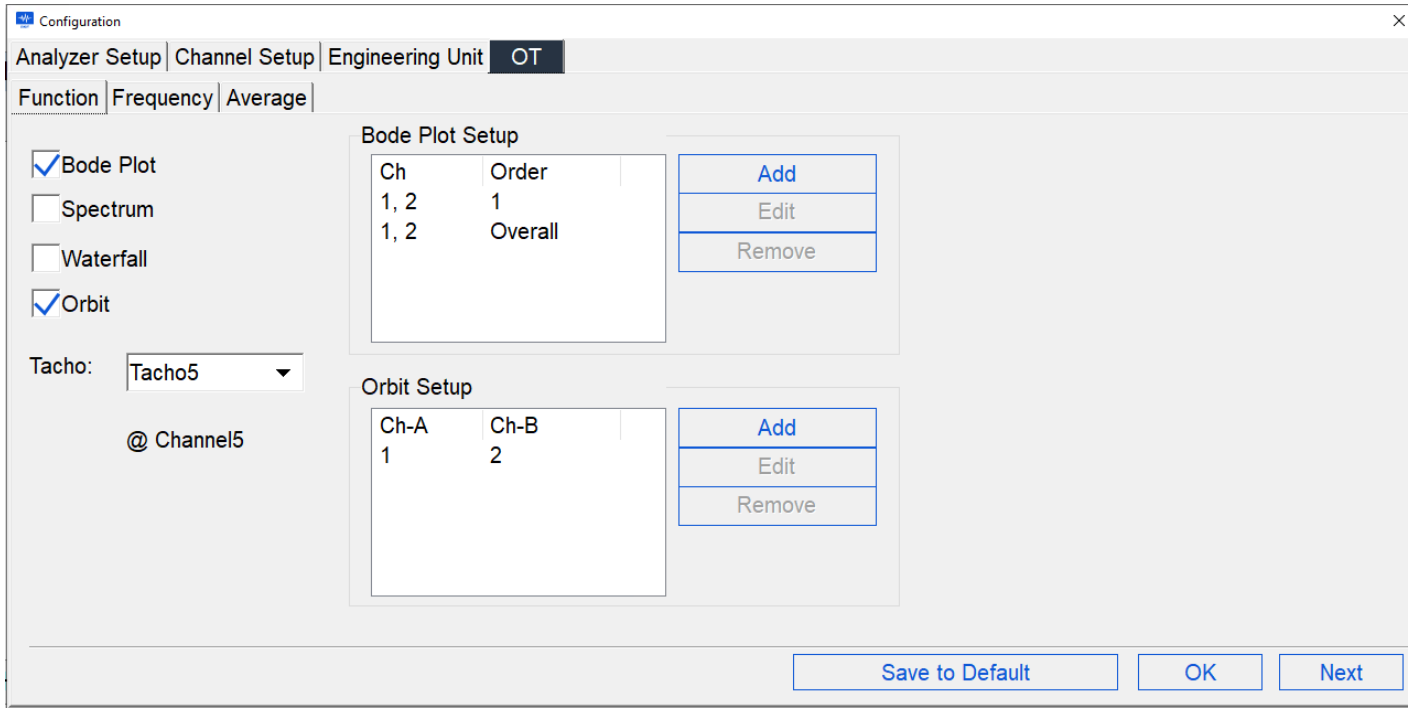
The other fields are optional.

Orbit Analysis – Engineering Unit



Next, the settings on the Engineering Units tab are required.

Orbit Analysis – Order Tracking – Function



The Order Tracking tab contains the subtabs, Function, Frequency, and Average.

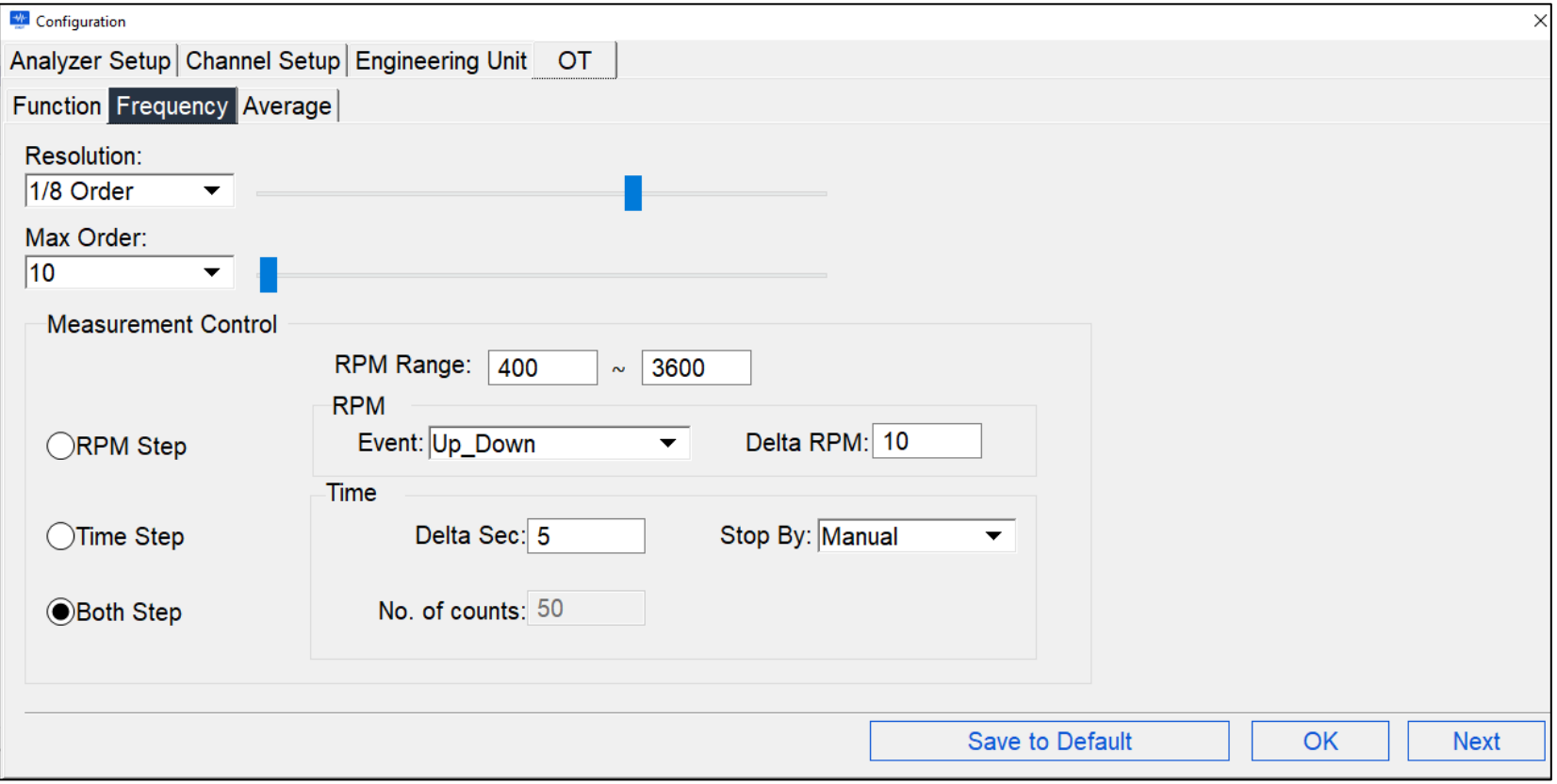
Under Function, select which types of measurements to perform. The options are: Bode diagram, FFT spectrum, cascade, and orbit.

You will also be shown the channel for the tachometer, which has been previously defined.

If the orbit diagram has been selected, you must edit the tracking properties.

Likewise, when choosing the orbit option, it is necessary to edit its configuration.

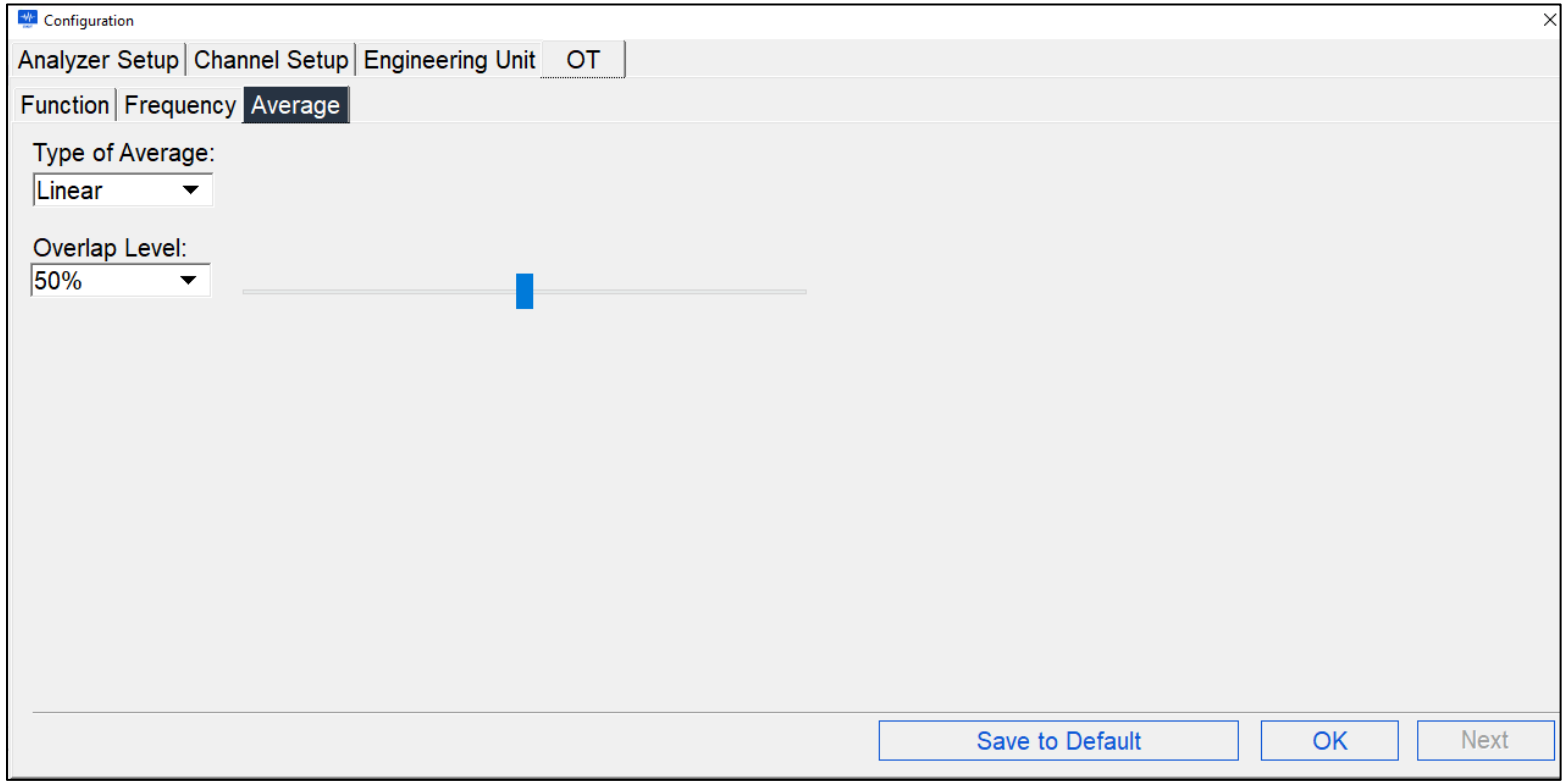
Orbit Analysis – Order Tracking – Frequency



The Frequency sub tab is used to configure the resolution, maximum number of orders, and measurement control.

Ensure Tachometer Setup is set to allow collection for the RPM Range

Orbit Analysis – Order Tracking – Average



On the Average Sub tab, you must select the media type and overlap level.

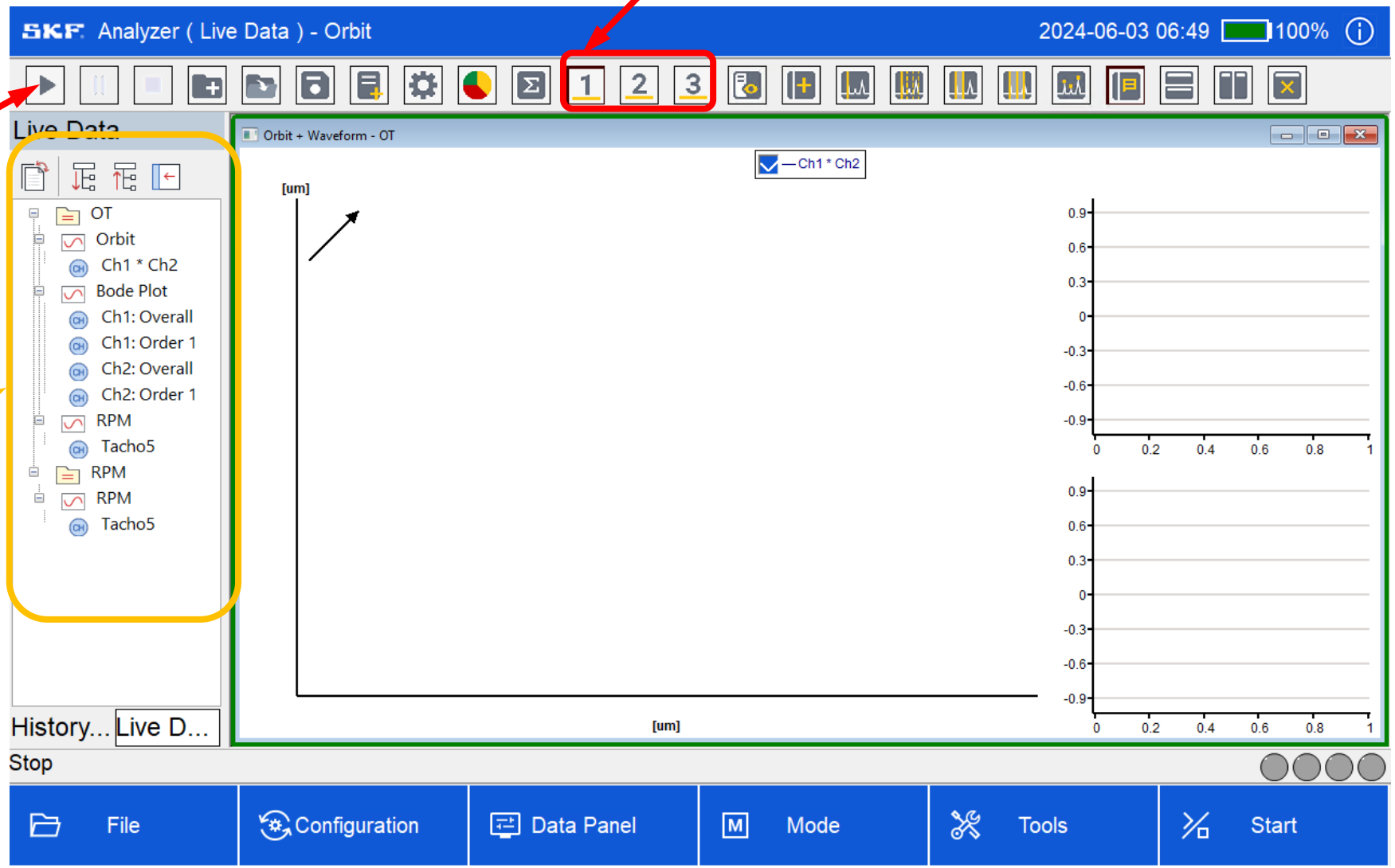
Real-time data collection

Orbit Analysis – Data collection

Create up to 3 chart visualizations

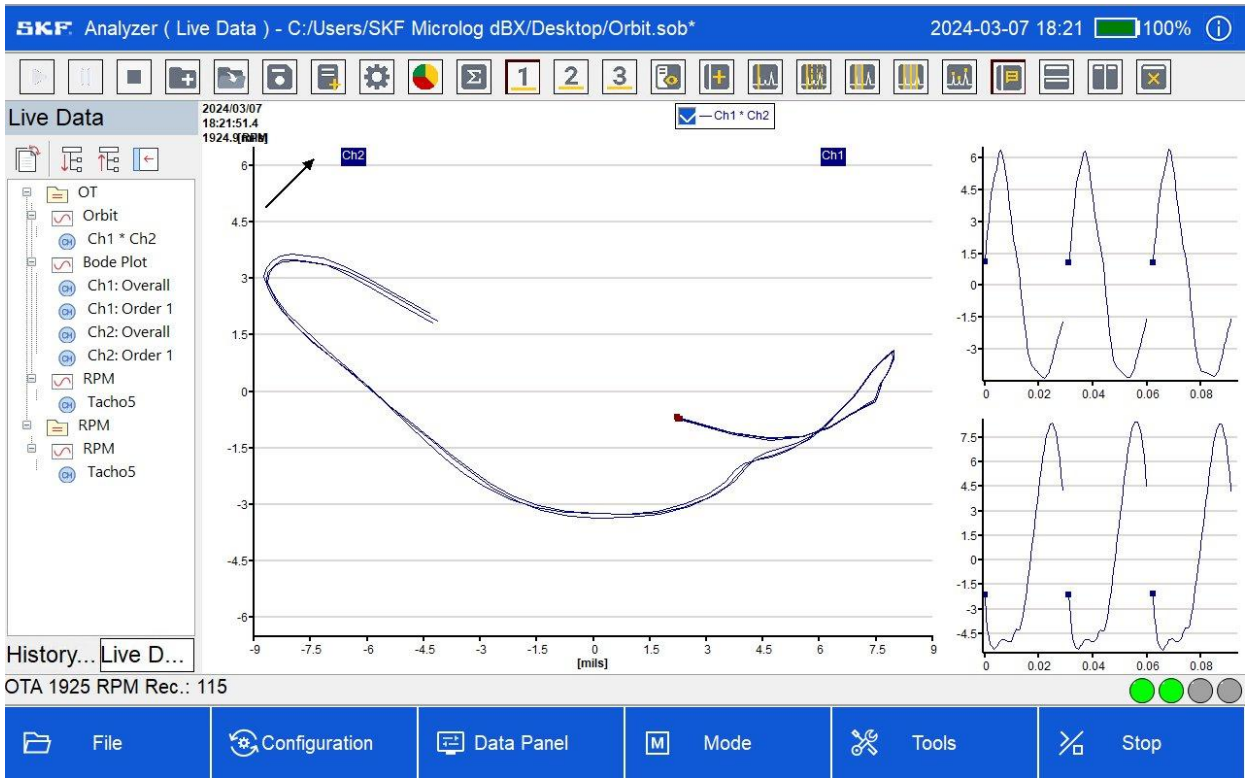
When you're ready, press the **Play** button to start data collection

Select the plot to add to the current view



Viewing Orbit Measurements

Orbit Analysis – Orbit Plotting

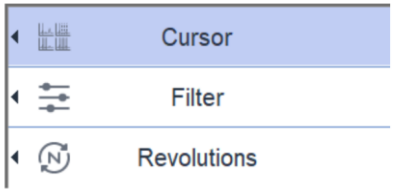


At the top of the orbit chart, the following parameters are shown:

- Rotation;
- Filter;
- DC GAP value;
- Cursor value.

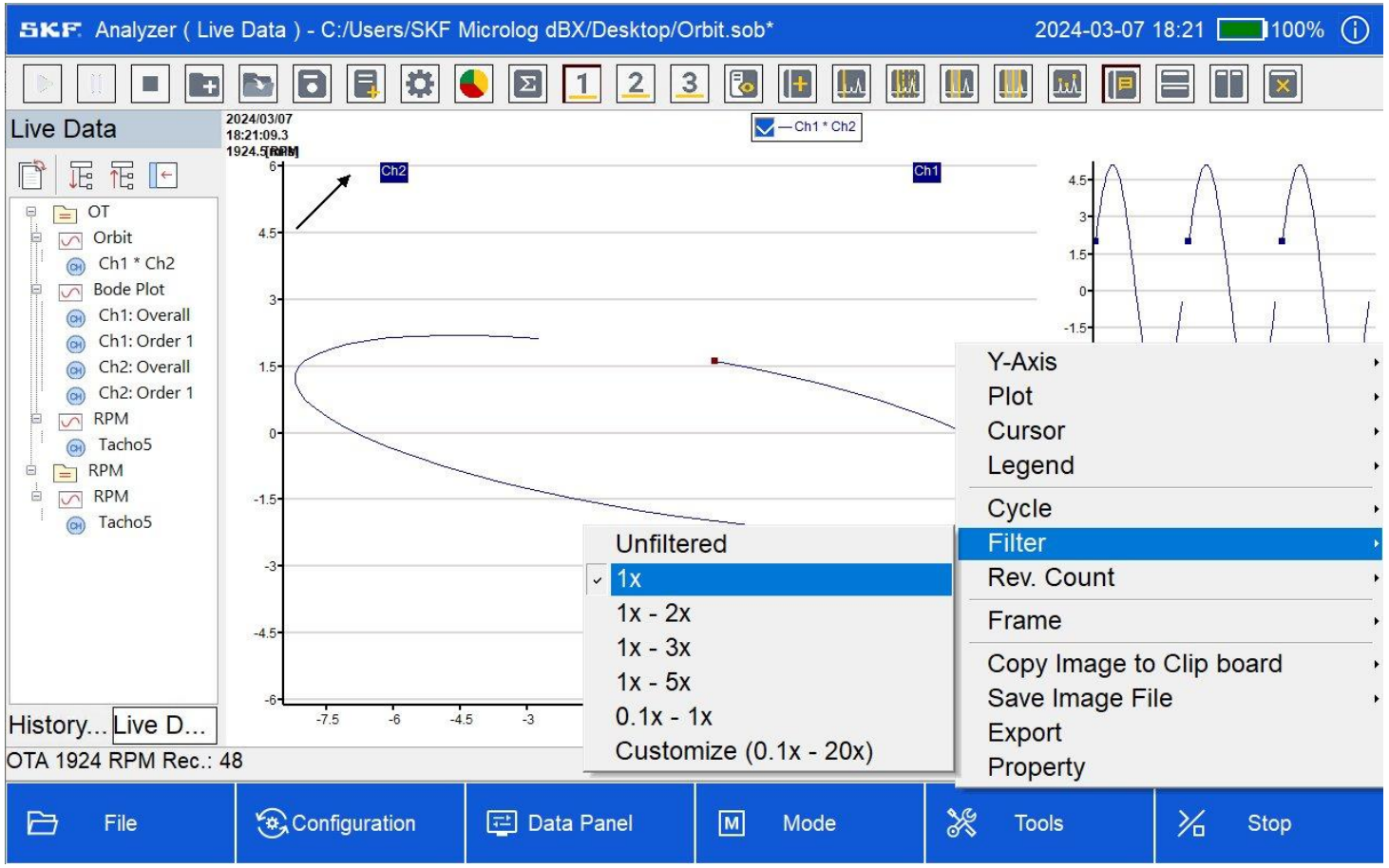
To access other view options, press the view option in the bottom right corner.

The orbit graph menu allows you to configure the following display items: cursor type, filter, and number of revolutions.



Orbit Analysis – Orbit Plotting

The application of filters allows the visualization of the orbit of one or more revolutions.



Additional information

SKF Microlog Analyzer dBX – Quick Start Guide

SKF Microlog Analyzer dBX, CMVA 90 Quick Start Guide:

27 pages of information about the SKF Microlog Analyzer dBX product.

Contains, safety information, Product description, Product Specification, Electrical waste guidance, calibration, repair and warranty statement, EULA and FCC statements

https://www.skf.com/group/products/condition-monitoring-systems/product-support-training/product-manuals

SKF Microlog Analyzer dBX

Quick Start Guide
Part Number **15V-090-00102-200**
Revision **B – June 2023**

Read this manual carefully before using the product. Failure to follow the instructions and safety precautions in this manual can result in serious injury, damage to the product or incorrect readings. Keep this manual in a safe location for future reference.

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SKF Microlog Analyzer dBX – User Manual

SKF Microlog Analyzer dBX, CMVA 90 User Manual:

202 pages of information about the SKF Microlog Analyzer dBX software tools/Apps.

Explains Data Collector, Bump Test, dBX Analyzer, gE Enveloping , Balancing, FRF & ODS analysis, etc. features and functionality.

https://www.skf.com/group/products/condition-monitoring-systems/product-support-training/product-manuals


SKF Microlog Analyzer dBX

User Manual
Part Number **15V-090-00102-100**
Revision **B – June 2023**

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Thank you!


SKF