

## Knowledge Base Article

Product Group: Software Product: CMSW7400 - @ptitude Analyst Version: N/A

## Abstract

This article provides the setup for Relative/Cross Channel phase within SKF @ptitude Analyst. The setup for a Non-Route Relative/Cross Channel phase is also included in this article.

## Overview

The steps below should be followed when setting up a Relative/Cross Channel phase setup in @ptitude Analyst.

1. First, select Vibration (2-Channel) as the Application. [Figure 1]



Figure 1. DAD/POINT Type Selection

- 2. Next, select the **Sensor Type** (most likely **Accelerometer**) and desired **Units** of measure. [Figure 2]
- 3. To create a measurement that will incorporate Phase, change the measurement setup from Fixed Span to **Order Track** in the **Setup** tab, as demonstrated in Figure 2.



P	OINT Properties				
	Speed Alarm   M General Setu	Messages   Notes   p   2-Channel   Con	Frequencies   Image apliance   Filter Keys	s   Band   Envelope     Setup Log   Overall	
	Full scale: 0.5 in/s Detection: Peak 🗸				
	Freq. type:	Order track	Lines:	400 💌	
	Save data:	Fixed span Order track	Window:	Hanning 💌	
	Start order:	0	Autocapture:	Always 💌	
	End order:	10	Speed:	1800 RPM	
	Low freq. cutoff:	300 CPM	Averages:	2	
	Pulses/Rev:	1	Averaging:	Average 💌	

Figure 2. POINT Properties

4. Next, change the **Save data** field to **FFT and cross-phase**. [Figure 3]

POINT Properties					
Speed Alarm M General Setup	Band Envelope Setup Log Overall				
Full scale:	0.5 in/s	Detection:	Peak 💌		
Freq. type:	Order track	Lines:	400 💌		
Save data:	FFT 😽	Window:	Hanning 🛛 🖌		
Start order:	FFT Time FFT and time	Autocapture:	Always 💌		
End order:	FFT and cross-phase	Speed:	1800 RPM		
Low freq. cutoff:	300 CPM	Averages:	2		
Pulses/Rev:	1	Averaging:	Average 💌		

Figure 3. Set as FFT and cross-phase

5. The **End order** value will determine the maximum frequency (number of orders x RPM) range.



- 6. Figure 4 shows the proper Non-Route setup to collect Cross Channel Phase data using two sensors and no external trigger. The two main settings are **Display Format: Phase** and **Input Channel: X & Y** 
  - For CMXA 75 and CMXA 80 Micrologs, the Input Channel will be <u>CH1 & CH2</u> instead of X & Y.

Nonroute User 🙀 12:				
Change Name:	Select Level	🔺		
Display Format:	Phase			
Units:	A->V (IPS)			
Counling:	ICP			
Input channel:	X & Y			
Detection:	Peak			
Sensitivity:	100mV/EU			
Filter:	120CPM			
Fmax:	12000CPM			
Lines/Samples:	3200/8192			
Window:	Hanning			
Averages:	2			
Overlap:	50%			
Type:	Spectral			
Ext trig slope:	+			
Trig Level:	2.5V	<b>–</b>		
Help Defa	ult Bksp	Esc		



Figure 4. Non-Route setup

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For further assistance, please contact the Technical Support Group by phone at 1-800-523-7514 option 8, or by email at <u>TSG-Americas@skf.com</u>.