

## Knowledge Base Article

Product Group: IMx Product: IMx-S Version: N/A

## Abstract

This article describes a brief procedure on how to add standard IMx vibration POINTs in SKF @ptitude Analyst software. Only single channel POINTs are discussed in this guide.

## **Overview**

The following items will be addressed in this document:

- Selecting device type, application, sensor, and corresponding units.
- POINT setup and compliance/schedule.
- Relays and Active Range configuration, including speed, process and digital.
- Alarms (overall, envelope, band and speed).







Follow the steps below to add IMx vibration POINTs into SKF @ptitude Analyst. Press the **[Help]** button at any time for more information about POINT configuration.

**Item**. [Figure 1]

1. In the hierarchy, right-click on the machine of interest and select **Insert** 

SKF @ptitude Analyst - ADMIN - Hierarchy (Expires on 1/1/2 File Edit View Insert Transfer Customize Tools 🐍 🔊 🖓 🐥 🔥 🛈 🐁 📥 🔍 関 🛃 My Hierarchies 🗄 🔶 🔙 Hierarchy 🗄 🔶 📜 Decision Support 🗄 🔶 📜 Products 🗄 🔶 📜 Microlog 🗄 🔶 📜 Inspector 🗄 --- 😑 📜 DMx 🗄 -- 😑 📜 IMx - e 🕸 I Insert Item... 🗄 -- 🔶 📜 WMx 🗄 -- 🔶 📜 TMU Cut 🗄 -- 🔶 📜 LMU Сору 🗄 --- 📥 📜 CMU 🗄 – 🔶 📜 TrendOil Paste Paste Multiple... Delete Properties...



- Figure 1. Inserting an item
- 2. Select **IMx** as the DAD type, and **Vibration** as the Application.

Note: There are multiple options under Application; however, the purpose of this document is to address the vibration field only.

DAD/POINT Ty	pe Selection	X
<u>D</u> AD type:	IMx	-
Application:	Vibration	•
<u>S</u> ensor type:	DC	•
<u>U</u> nits:	microns	•
40	Cancel	Help

Figure 2. Selection for POINT creation



3. Select the **Sensor type** based upon the intended application.

In this example, **Accelerometer** will be selected for Sensor type, and **g** will be selected for Units. [Figure 3] Press **OK**.

DAD/POINT Typ	e Selection	×
<u>D</u> AD type:	IMx	•
Application:	Vibration	-
<u>S</u> ensor type:	Accelerometer	•
<u>U</u> nits:	g	•
ОК	g gE in/s m/^2	- -
Figure	<b>3.</b> Sensor type and Units	



4. The POINT Properties dialog will appear. In the **General** tab, enter the POINT **Name** and **Description**. A summary of the POINT type can be read. The **Enable data collection** option must be checked in order to activate the POINT. [Figure 4]

INT Properties	
Speed Alarm M	lessages   Notes   Frequencies   Images   Band   Envelo
General   Setu	o   IMx Setup   Schedule   Filter Keys   Setup Log   Uve
Identity	
Name:	MI 01HA
Description:	
🕨 🖂 Enable data d	ollection
DAD type:	IMX
Application:	Vibration
Sensor type:	Accelerometer
Units:	g
Location:	
	OK Cancel Hel





5. Next, click the **Setup** tab. The Setup tab is perhaps the most important section, as it contains core information about the POINT. Select the corresponding **Device** (DAD) from the drop-down list and then assign the corresponding **Channel name**. [Figure 5]

Speed A <del>lerm</del> Genera Setr	Messenjes   Notes   up   IMx Setup   Sch	Frequencies   Image nedule   Filter Keys	es Band Envelop Setup Log Overa
Device:	IMx Training 🗨	Channel name:	(1) Channel 1 💌
Full scale:	5 g	Detection:	RMS 💌
Freq. type:	Fixed span 💌	Lines:	1600 💌
Save data:	FFT	Window:	Hanning 🗨
Start freq.:	0 kCPM	Speed:	1800 RPM
End freq.:	120.0 💌 kCPM	Averages:	2 💌
Low freq. cutoff:	1200 CPM	Averaging:	Average 💌
Linear factor:	0	Linear speed units:	
Control POINT:	None		Select
			Cancel Helt





6. If required, the **IMx Setup** tab can be used to enter additional IMxspecific information unique to the POINT of interest, such as speed, relay and control data. [Figure 6]

NT Properties	
Speed Alarm   Messa General   Setup	i <mark>nes Notes</mark> Frequencies Mages Band Envelop IMx Setup Schedule Filter Keys Setup Log Overa
Alarm group:	IMx Alam Group  View
Alert relay:	Relay1   Danger relay: Relay1
Speed collection	
Speed reference:	\Hierarchy \Products \IMx \IMx Training \Speed
Speed ratio:	1
Min: 1000	Max: 3000 Delta: 20 Unit: RPM
Process collection Process reference:	\Hierarchy \Products \IMx \IMx Training \MI 01' Select
Enable active rang	e
Min: 80	Max: 120 Delta: 5 Unit: Process Unit
Digital Collection Digital reference:	\Hierarchy \Products \IMx \IMx Training \State Select
Enable active rang	e Active state: High 🔹
	OK Cancel Help

Figure 6. IMx Setup tab



7. Data collection schedules, as well as the conditions that dictate data archiving, may be configured in the **Schedule** tab. This section also allows for configuring general data collection guidelines. [Figure 7] The actual time stamp for a reading will depend on factors such as averages, resolution, etc.

- Data collection	1	Concert(c)
l ake data every:	'	
Keep current data for:	24	Week(s)
-Short term archive		
Archive data every:	1	Week(s)
Keep archive for:	24	Month(s)
Long term archive		
Archive data every:	12	Month(s)
Keep archive for:	5	Year(s)
Unscheduled data		
Keep for:	2	Year(s)

**Note:** With IMx units, it may be possible to collect data as fast as every one (1) second!

Figure 7. Schedule tab



8. The **Overall** tab allows for entry of alarm and danger criteria. Press the **[Help]** button for a full description of each alarm type. [Figure 8]

General Setup	IMx Setup	Schedule	Filter Keys	es   Bano   Setup Log	Overa
<u>C</u> hannel:	1	<b>v</b>			
0⊻erall alarms:	Private a	alarm>			•
Properties					
C <u>N</u> one					
C In window					
O <u>O</u> ut of window					
- Settings					
Danger bigh	35			Davida	
<u>E sugar ngr</u>		_		Alort high	
Alert high	2			Aleit high	
				Clear	
				Ciear	
				0	haro Ao
					inare As





9. To set up an envelope alarm, click on the **Envelope** tab. This section provides the option to "draw" the alarm for given data. [Figure 9]

Note: This is only an option after spectral data has been collected. It will not appear on a new POINT.

General Setup Speed Alarm Messag	IMx Setup   Schedule   Filter Keys   Setup Log   Over es   Notes   Frequencies   Images   Baseline   Band   Envelo
Channel:	1 -
Envelope alarms:	<custom envelope=""></custom>
Configuration Spectrum source:	MI 01HA
Spectrum:	7/9/2009 4:11:40 PM
0.000	
0.008 0.006 0.004 0.002	
	000 100000 150000 200000 250000 300000 Frequency - CPM





10. Band alarms can be set from within the **Band** tab. [Figure 10] A maximum of four (4) band alarms may be set to a single IMx device.

Remember, data must exist in the POINT in order for the assignment to take place.

DINT Propertie	s				<b>— X</b>
General Speed Alarm	Setup   II Messages	MxSetup   Sch   Notes   Freque	nedule   Filt encies   Imag	erKeys   Setun es   Baselino   E	Log Overall Band Envelope
<u>C</u> hannel:	F	1	Y		
<u>B</u> and alarms: ⊏ Band inform	nation [	'[Band 2]		•	Load
Lab <u>e</u> l:	Band 2				2 of 3 📑
Low <u>f</u> req.:	40000	Peak <u>d</u> anger:	0.003	<u>O</u> verall danger:	0.0035
High freq.:	200000	<u>P</u> eak alert:	0.002	0 <u>v</u> erall alert:	0.0025
☑ <u>D</u> ownloa	ad to IMx		Total down	oad: 3 of 4	
Spectr <u>u</u> m sou	urce:	MI 01HA		<b>v</b>	
Spec <u>t</u> rum:	[	7/9/2009 4:11:40	РМ	•	
0.0095 <u>  0.006</u> 0.004 0.002 0.002					Lichar,
0	5000	00 100000 Free	150000 quency - CP	200000 2500 M	00 300000
🔲 Show all I	ba <u>n</u> ds		S <u>h</u> are As	. <u>A</u> dd	<u>R</u> emove
			OK	Cancel	Help

Figure 10. Band tab



11. The last item to discuss in this article is the **Speed Alarm** tab. This section accepts user-defined speed alarm range parameters that are typically used to avoid phenomena such as machine resonance. [Figure 11]

General   Se Speed Alarm   N	stup   IMxSetup   Messages   Notes   F	Schedule   Filter K Frequencies   Images	eys   Setup Log   Baseline   Band	) Overal d Envelop
Speed alarms:	<private speed<="" th=""><th>alarm&gt;</th><th></th><th>•</th></private>	alarm>		•
500 450 				
0	1000 2000	3000 4000 Speed - RPM	5000	6600
Regio <u>n</u> : — Properties ——	4	•	Insert	Clear
Start range:	4000 6000	Rațio:	150 □ <u>D</u> eadband	
			1	<u>S</u> hare As



Figure 11. Speed Alarm tab

12. Press **OK** to save the changes.

An IMx vibration POINT has been created.

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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>.

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