

# Knowledge Base Article

Product Group: Multilog On-Line Systems Product: WMx; WVT Version: N/A

## Abstract

SKF Multilog WMx On-Line System POINTs now have a new attribute called 'Gain'. This new field shall replace the old attribute called 'Autorange'. All the WMx POINT types (except DC, Diagnostic, Speed and integrated POINTs) now support the new 'Gain' field.

Gain is a multiplier to the input sample to improve resolution for small signals. The user shall be provided with Gain options 1 and 10. The default value is 1, for very low amplitude signals. The user can change it to 10 to improve amplitude resolution.

These changes are enforced SKF @ptitude Analyst and WMx Service. Please refer this document for the details of this change for WMx POINTs in SKF @ptitude Analyst.

# Overview

This document shares the change where 'Gain' field replaces 'Autorange' field for WMx POINTs only. All the WMx point types (except DC, Diagnostic, Speed and integrated POINTs) shall now support the new 'Gain' field. These changes shall impact the following areas:

- 1. <u>WMx POINT Properties</u>
- 2. Modify-By-Attribute
- 3. <u>Filter</u>
- 4. <u>Reports</u>
- 5. <u>.mab Import Export</u>
- 6. WMx Service Processing



#### WMx POINT Properties:

'Autorange' field on the Setup tab for WMx points shall be replaced by a new 'Gain' field. All the WMx point types (except DC, Diagnostic, Speed and integrated POINTs) shall now support the new 'Gain' field. [Figure 1]

General Setup			Setup Log Overall	Gating Speed Alam
Devi <u>c</u> e:	< Unassign	ed>		
Channel name:	< Unassign	ed>		•
<u>F</u> ull scale:	5	g	Detection:	RMS 👻
Gain:	10	•		
	1 10			
Freq. <u>t</u> ype:	Fixed span	•	<u>L</u> ines:	400 🔻
Sa <u>v</u> e data:	FFT	•	Window:	Hanning 🔹
St <u>a</u> rt freq.:	0	kCPM	<u>S</u> peed:	1800 RPM
End freq.:	120 🔻	kCPM	Avera <u>q</u> es:	1 -
Low fre <u>q</u> . cutoff:	1200	СРМ	Avera <u>q</u> ing:	Average 👻
Enable tacho:	Tacho 1	-	<u>T</u> rigger Timeout:	Second(s)
Linear fact <u>o</u> r:	0		L <u>i</u> near speed units:	
Control POINT:	None			Select

Figure 1. Gain field

The options available for Gain are 1 and 10. If the preferences are not set, a default value of 1 is used for Gain. Once the point is saved with a Gain setting, it becomes the preferred value of Gain for the next POINT (of the same POINT Type).

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### Modify-By-Attribute:

This new attribute can be seen in the Modify-By-Attribute window under Online Settings. [Figure 2] This attribute shall be supported for WMx POINTs only (except DC, Speed, Diagnostic and integrated POINTs).

'Set' and 'Set All' buttons can be used to set the values for single or multiple POINTs.

butes:	Attribute values:		
💼 IMx Settings 🔹	Item	Value	
- Messages	Rew Group		
Misc Settings	WMx Accel g	10	
Online Settings	WMx Temp		
Active State	Mx Accel g		
Active State	IMU LMU		
Crash Monitor			
E Control POINT E Crash Monitor Device E Digital Output			
Digital Output			
🗐 Gain			
E Logic Bin Number			
El Logic Gating			
Logic Gating Sensor Settings Tacho Enable			
Tacho Mode			
Tacho Number			
Tacho Mode Tacho Number Tacho Threshold			
🛄 Tacho Trigger Timeout	,		
Orbit/SCL Settings			Select All Clear All
/Mx Accel g			
alue: 10		•	Set Set All
,			
			Close Help

**Figure 2.** Gain attribute in Modify-By-Attribute window

The options available to set are 1 and 10. Changes made from the Modify-By-Attribute window are saved to the POINT configuration and can be seen when the WMx POINT Properties dialog is opened.



The Autorange attribute does not support WMx POINTs now. Attribute settings are grayed out when a WMx POINT is displayed. [Figure 3]

Modify By Attribute Attributes:		Attribute values:		×	
Max Settings     Max Settings     Messages     Misc Settings     Active State     Active State     Online Settings     Online Settings     Online Settings     Online Settings     Online Mumber     Ocntrol POINT     Ocrash Monitor     Device     Digital Output     Gain     Logic Bin Number     Logic Gating     Sensor Settings     Tacho Mode     Tacho Number     Tacho Number		Item ☑ New Group ☑ WMtx Accel g ☑ WMtx Temp ☑ IMtx Accel g ☑ LMU	Off		
Attribute value	Ŧ	1	Set	<u>C</u> lear All	
			✓ <u>≥</u> et Close	Help	

Figure 3. Autorange attribute grayed out



### Filter:

In SKF @ptitude Analyst, select **Insert > Filter**. An 'Apply Filter' dialog is displayed.

The Online filter section will have a new attribute to select from - Gain. Once this attribute is selected, two options of 1 and 10 are enabled in the right pane. [Figure 4]

Apply Filter		×
Filter: <private filter="">           Image: Comparison of the second se</private>	C Root node - My Hierarchies     Selected node - New Group	
Filter on attributes:	Settings	
Autorange Channel Numbe Control POINT	r	-
····□	E All Clear	-
Gan Gan Cogic Bin Numb Cogic Gating		
1 of 130 attributes selected		Help

**Figure 4.** Apply filter dialog

The user can either select one or all Gain option(s). The user can also make a selection to filter either on the root node or the selected node in the hierarchy.

After making the selections and clicking 'OK', a new temporary workspace is created and displayed to the user with the list of WMx POINTs with the selected Gain option(s).



#### **Reports:**

During the creation of reports in the Report Editor dialog, there is a column list to choose from. Some reports allow most POINT attributes to be added as columns.

Such reports will now show the new 'Gain' attribute as well. [Figure 5]

Report Editor General Definition Assign	
Select report criteria:	Available columns:       Included columns:         Available columns:       Included columns:         Enabled       Included columns:         Extended machine name       POINT name         Form type       Point and the point and
B ··· □ ■ ROUTE History B ··□ ■ Collection Status Collection Status	Include ≥>     ≤< Exclude     Up     Down       Sort on: <hierarchy order="">     ▼       C     Asgending     © Descending</hierarchy>
<ul> <li>↓</li> <li>↓</li> </ul>	OK Cancel Help

Figure 5. Gain attribute in Report Editor

Once this attribute is selected and added to the column list, this report can be generated to display the new column with the Gain values for the POINTs in the report. [Figure 6]





#### .mab Import - Export:

New WMx POINTs shall be exported and imported with Gain attribute values instead of Autorange values. Gain attribute shall be added for all the WMx POINT types (except DC, Diagnostic, Speed and integrated POINTs).

When earlier versions of .mab files will be imported, the Autorange values shall be discarded for WMx POINTs. Instead, a default Gain of 1 shall be inserted for the imported POINTs (except DC, Diagnostic, Speed and integrated POINTs).





#### WMx Service Processing:

Earlier when Autorange was turned off, the WMx Service calculated the gain internally for the WMx POINTs.

Now the gain value saved for the WMx POINTs (except DC, Diagnostic, Speed and integrated POINTs), shall be communicated to the device via the WMx Service. The user shall have an option to choose from a gain of 1 or 10 while configuring these WMx POINTs in @ptitude Analyst.

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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-CMC@skf.com</u>.