

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	Schedule Fi	lter Keys	Setup Log Overall	Gating Speed	Alarm
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	•	Lines:	400	•
Sa <u>v</u> e data:	FFT	•	Window:	Hanning	•
St <u>a</u> rt freq.:	0	kCPM	<u>S</u> peed:	1800 R	PM
End freq.:	120 -	kCPM	Averages:	1	•
Low fre <u>q</u> , cutoff:	1200	СРМ	Averaging:	Average	•
Enable tacho:	Tacho 1	-	Trigger Timeout:	Secon	d(s)
Linear fact <u>o</u> r:	0		Linear 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).



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	New Group		
Misc Settings	WMx Accel g	10	
Online Settings	WMx Temp		
Active State	Mx Accel g		
	IMU LMU		
Crash Monitor			
Digital Output			
🖹 Gain			
El Logic Bin Number			
El Logic Gating			
El Tacho Enable			
Tacho Mode			
Tacho Number			
Tacho Threshold			
Tacho Trigger Timeout	,		
Orbit/SCL Settings T			<u>Select All</u> <u>Clear All</u>
/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:		x	
Max Settings Max Settings Messages Misc Settings Active State Active State Distain Number Control POINT 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		
Tacho Trigger Timeout Orbit/SCL Settings	Ŧ	1	Select All	Clear All	
			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	P4- 7	×
<u>F</u> ilter: <private filter=""></private> ✓ Keep hierarchy	Hiter from G Root node - My Hierarchies Selected node - New Group	
Filter on attributes:	Share As Clear OK Cancel H	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:	Criteria setup Available columns: Included columns: Enabled Included columns: Extended machine name POINT name Form type Prequency Full scale gE Previous value Full Scale Colocity E Gain E IOP Enabled Ints Input filter range Inspection prompt Inspection result Level Linear factor Linear speed Linear speed units Tinear speed Linear speed units Tinear speed
ROUTE History Collection Status Transient	Include ≥> ≤< Exclude Up Down Sort on: <hierarchy order=""> ▼ C Ascending © Descending</hierarchy>
	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.

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>.