## Logic Points Set up in SKF @ptitude Analyst with External Switches Connected to SKF Multilog On-line System IMx-S

## Introduction

Some industries require having external switches in order to enable or disable data collection manually. This document describes how to connect and set up these external controls using SKF Multilog IMx-S power. It is important to remember that for digital channels 1 to 4, it is possible to enable data collection with 24 V dip switches (internally powered), but for digital channels 5 to 8 it is not possible. Therefore, a special connection is necessary in order to use SKF Multilog IMx-S power in these last channels.

## Procedure

**1** Set up the dip switches for channels 1 to 4 with the following:

Terminal		DIP Settings position: 1234
+	А	1010
-	В	
N.C.	0	

Fig. 1. Set up dip switches.

2 If you will use digital channels 1 to 4, connect a switch between terminals A and B.





**3** If you will use digital channels 1 to 8, according to **fig. 3**, connect in pairs 1-5, 2-6, 3-7 and 4-8 a 1 kΩ resistorin order to power channels 5 to 8.



Fig. 3. Connect in pairs in order to power channels 5 to 8.

4 From SKF @ptitude Analyst, select Customize / Online Settings. From the Devices tab (→ fig. 4), select the SKF Multilog IMx unit and click Config in order to enable a digital channel (→ fig. 5). Do this for each channel you will use as a binary point.

			Configure IN	tx Channel	_		 ×
			Analog D	gtal			
			Digital cha	annels:			
		X	Number	Name	Ena.	Pulse/Rev	
Online Settings	and the property of		1	Binary	Yes	1	
			2	Channel 2	No	1	
Devices Sensor Setup Gating	3		E 3	Channel 3	No	1	
· · ·	1		E 4	Channel 4	No	1	
Ausilable hardware devices:	(		E 5	Channel 5	No	1	
Available haruware devices.	IMx M	<b>—</b>	E 6	Channel 6	No	1	
- Properties			7	Channel 7	No	1	
	luce of the second seco		8	Channel 8	No	1	
Device <u>n</u> ame:	IMx M						 
			Propertie	8			
DAD type:	IMx-M	<u>C</u> onfig	Channel	name:	Binary		
		2	Cha	nnel enabled			
IM <u>x</u> service:	IMxTraining 📃 💌	H <u>o</u> sts		and Suppos			
			Pulse pe	er revolution:	1		

Fig. 4. Online Settings' Device tab.



5 Insert a logic point in SKF @ptitude Analyst by right-clicking the hierarchy and selecting Insert Item (→ fig. 6). From the DAD/POINT Type Selection window (→ fig. 7), choose "Logic" as the Sensor type.

ili 📜		
	Insert Iten	
=	Cut	DAD/POINT Type Selection
	Сору	DAD type: IMx
	Paste	Application: General ▼
	Paste Multiple	Sensor type: Logic
=	Delete	Units: State
	Properties	OK Cancel Help

Fig. 6. Select Insert Item.

Fig. 7. DAD/POINT Type Selection window.

6 From the General tab (→ fig. 8), name the point. From the Setup tab (→ fig. 9), set the Device and Channel name, and then set the Active State as "High". Repeat this for each channel.

ſ	General Setup IM:	<setup filter="" images="" keys="" log="" notes="" schedule="" setup="" th=""  =""  <=""><th>General Setup IMx Setu</th></setup>	General Setup IMx Setu
	- Identity		Devi <u>c</u> e IM
	<u>N</u> ame:	Binary	Active State
	Description:		Unassigned

General Setup   IMx Setup   Schedule   Filter Keys   Setup Log   Notes   Images						
Devi <u>c</u> e	IMx M -	Channel name	(1) Binary 🔹			
Active State						
© <u>U</u> nassigned	© <u>L</u> ow	() H	igh			

Fig. 8. Name the point.

Fig. 9. Set the device, channel name and active state.

7 Go to the properties of the points for which you want to set up the acquisition condition.

- In the IMx Setup tab (→ fig. 10), click Select in the digital collection section.
- Choose the binary point and click **OK** (→ fig. 11).
- Check Enable active range and set the Active state as "High", then click OK (→ fig. 12).

Alarm <u>g</u> roup:	Alarm gro	pup 1		•	<u>V</u> iew
Ale <u>rt relay:</u>	Relay1	•	<u>D</u> anger relay	: F	Relay2 🔻
Speed collection				-	
Speed reference:					Select
Speed <u>r</u> atio:	1				
H: 1000	Lu [200		0	1	DDM
Min: 1000 Process collection Process reference:	] Ma <u>x</u> : 300	D <u>D</u> elta:	0	] <u>U</u> nit:	RPM Select
Min: 1000 Process collection Process reference: Denable active ra	) Ma <u>x</u> : 300	0 <u>D</u> elta:	0	Unit:	RPM
Min: 1000 Process collection Process reference: Denable active ra Min: 1000	Ma <u>x</u> : 300	0 <u>D</u> elta:	0	] <u>U</u> nit:	RPM Select Process Unit
Min:     1000       Process collection       Process reference:       Enable active ra       Min:     1000       Digital Collection	Ma <u>x</u> : 3000	D Delta:	0	] <u>U</u> nit:	RPM Select Process Unit
Min:     1000       Process collection     Process reference:       □     Enable active ra       Min:     1000       Digital Collection     Digital reference:	Max: 300	D Delta:	0	) <u>U</u> nit:	RPM Select Process Unit

Fig. 10. Click Select from the Digital Collection section.

Digital Collection			
Digital reference:	\Hierarchy \IMx m \Binary		Select
-			
Enable active range	Active state:	High 🔹	

Fig. 12. Enable active range and set active state.



Fig. 11. Choose the binary point.

With this procedure, when a switch or switches are turned on (status high), data collection will start in the points with digital collection enabled.



Fig. 13. List of routes and hierarchy.

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