

Turn on FSU in Motosim VRC

Introduction

This document is a simple, visual walk-through of activating Functional Safety (FSU) in MotosimEG VRC.

Workflow

In any new simulation or many existing simulations Functional Safety will not be active. Note how the Functional Safety icons, in the Controller Tab, are grayed out.



1. In the Controller Tab go into MAINTENANCE MODE





2. In the Virtual Pendant Select SYSTEM/SETUP

SYSTEM	INITIALIZE	SECURITY		
FILE	SETUP			
EX. MEMORY	VERSION			
TOOL	CONTROLLER INFORMATION			
	ALARM HISTORY			
	SD ACCESS			
	TIMESTAMP INFORMATION			

3. Cursor to OPTION FUNCTION and Select it



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4. Cursor to FUNCTIONAL SAFETY and Select

OPTION FUNCTION	
□015 RELATIVE JOB	NOT USED
□017 TCP	NOT USED
□018 MACRO INST.	NOT USED
🗆 020 I/F PANEL	NOT USED
□025 EXTERNAL REFERENCE POINT	NOT USED
□026 PARALLEL START INSTRUCTION	0
□027 COORDINATED INSTRUCTION	NOT USED
□028 STATION ANGLE DISPLAY	NOT USED
□030 LIMITS CUSTOMIZATION	DETAIL
□032 TOOL NO. SWITCHING	NOT USED
□033 SI UNIT INDICATION	NOT USED
🗆 034 DISPLAY IO NAME IN JOB	NOT USED
□037 VARIABLE ALLOCATION	DETAIL
□049 Functional safety	DETAIL
□055 SAFETY LOGICAL CIRCUIT SETTING	DETAIL

5. Change FUNCTIONAL SAFETY to USED and cursor down to CONNECTION SETTING

Functional safety [Function setting]	
Functional safety	USED
Connection setting	DETAIL
Speed Limit(DelayTimeInitVal)	ENABLE
Tool change monitor/Tool number select	NOT USED



6. Make sure the CONNECTION SETTING F-SAFE BOARD is set to USED

Functional sa Servo Board	ifety [Connection setting] F-Safe Board	
SV#1	FSU#1	USED	

7. ENTER and confirm the modification (Select YES to overwrite existing FSU data...Select NO to preserve existing FSU data)



8. Select FILE / INITIALIZE





9. Select "Functional Safety Board FLASH Reset" and CONFIRM the Reset



Reset?					
YES	NO				

10. Select END on the other window





Once rebooted, to access the Functional Safety in the pendant, change the controller's security mode to SAFETY

1. On the controller select system info/security



2. Change from MANAGEMENT to SAFETY and enter 555555555





Results

Now, when using the virtual pendant, the Safety Func. Section is fully exposed.

PLAY	TEACH	ł	START	HOLD	D SERVO ON ES		E.STOP	SYNC.	
DATA	DATA EDIT DISPLAY		UTILI	JTILITY 12 🖬			L		
EX. MEN	MORY		IDITV				_		
		AXIS RANGE LIMIT		В	BS ALLOC				
		AXIS SPEED MONITOR		₽ SI	SLC SIGNAL DISPLAY				
SETUP		P R	OBOT RANGE	SLC S DISP		GNAL AY SET			
SAFETY F	FUNC.	SPEED LIMIT		Ę	SPIN COMMENT				
DISPLAY	SETUP Aa	TOOL ANGLE MONITOR			TOTAL CRC DISPLAY				
	TIMER DELAY SET		SET						
	SAFETY LOGIC		c						
Main M	enu	Simp	le Menu						

Also the Safety Function Menu, in the Controller Tab, is available.

