# Title: Connecting SigmaWin+ Ver.7 to SERVOPACKS through an MPiec Controller

Product(s): MP3000iec Series Controllers, SigmaWin+ Ver. 7

Doc. No. AN.MPIEC.20

#### **Application Overview**

With the release of MotionWorks IEC Version 3.3 and Firmware 3.3, it is now possible to use SigmaWin+ Version 7 to connect to multiple SERVOPACK axes over the MECHATROLINK-III network.



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#### Products Used

Component	Product and Model Number
Servopack	Sigma-7 Series Mechatrolink-III
Motor	Sigma-7 Series Servomotors
Controller	MP3000iec Series Controllers
Software	SigmaWin+ Version 7.20

#### **Application Requirements**

MP3000iec Series Firmware 3.3 or greater

SigmaWin+ Ver. 7.11 or greater

MECHATROLINK-III Sigma-7 SERVOPACKS

#### Application Solution and Benefits

Generally the user will connect with SigmaWin+ Version 7 for advanced tuning of axes, allowing traces down to 125 microseconds. Along with this, the many features of SigmaWin+ Version 7 allow identifying the inertia mismatch, finding notch filter frequencies through the use of the Easy FFT feature, running a Mechanical Analysis of a system, performing Auto-Tuning and utilizing One Parameter Tuning with many others to name.

With this feature, the user can now connect to all SERVOPACKS via the MP3000iec series controller instead of connecting/disconnecting to each SERVOPACKS as needed. Connecting to SigmaWin+ Version 7 from the MP3000iec controller is a big time saver and allows the user to perform all of the actions without the USB cable.

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#### Implementation

Download the latest below:

- <u>SigmaWin+ Version 7</u>
- MotionWorks IEC (must have partner login)

#### Steps:

1. Establish IP Address on MP3000iec Series Controller

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Wel	come G	Guest		
	Yask	awa MP3300ie	c Controller Interface	
	Softwar	e Platform	MP3300iec	
	Version		3.4.0	
	Build N	umber	50	
	Build D	ate	2017-02-01	
	Hardwa	re Platform	JAPMC-CP3311-2-E	
	Model	lumber	PMC-U-MP33320-RBT	

- a.
- 2. Establish IP Address on pc



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3. Open SigmaWin+ Version 7

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4. Click the Home Button > Start > Connect the SERVOPACK

<b>a</b>	YASKAWA SigmaWin+ Ver.7				
Start	Connect the SERVOPACK.				
Save	Start SigmaWin+ offlir Connect the SERVOPACK.				
Options	Open a project file.				

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 If the Communications Settings window does not show 'Select the connection method.', click on the 'Search Again' at the top left hand corner to search for SERVOPACKS

Search	Annin						
Jearch	nyan						
Connec	t Circuit No.	Station Address	SERVOPACK	Servomotor	Options	Axis Name	
	1	3-0	SGD7W30A				
1	1	5	SGD75-****30A***				

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6. In the 'Select the connection method.' screen, click the 'Communications Settings' button at the top right hand corner



- 7. Click the drop down arrow and select 'Local Area Connection'
- 8. Type in the IP address from step 2 within 'IP Address' and 'Default Gateway'
- 9. Check the box 'Backup the above information when the settings are made'

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Change the computer network settings.	Current Computer Network Settings
Network adapter: Local Area Connection	Network Adapter Local Area Connection:Intel(R) 82579LM Gigabit Network Connection
-	Settings: Use the following settings.
IP Address: 192 . 168 . 1 . 62	IP Address: 192.168.1.62
Subnet Mask: 255 . 255 . 0	Subnet Mask: 255.255.255.0
Default Gateway: 192 . 168 . 1 . 62	Default Gateway:
	Back up the above information when the settings are made.
Set	Cancel

a. 11. Click on the blue right arrow to find the icon, 'MECHATROLINK Relay Device'



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- 12. In Relay Device Section at the right, type in the IP Address of the MPiec Controller
- 13. Click on 'Test(Ping)' to check the connection
  - a. 'Communications are OK.' should appear
- 14. Select the range of SERVOPACKS to find in Hex by starting at Station Address 3 to the maximum number of nodes on the system



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- 15. Click on 'Search for SERVOPACKS'
- 16. The SERVOPACKS on the network should have been found and shown as below

<u> </u>	-	0	650 VOD 4 617	<b>a</b> .	0.11		
Connect	Circuit No.	Station Address	SERVOPACK	Servomotor	Options	Axis Name	
	1	3-0	SGD/W-****30A****				
1	1	5	SGD7S-****30A***				

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- 17. Use the checkbox at the left of each SERVOPACK to connect
- 18. Click 'Connect'

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19. When connected, the screen will look like below

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0103-SGD7W-1R6A30/ Rotary motor	1700		*					
POWER	HBB FSTP	P-OT N-OT						
Rotary motor	HBB FSTP	P-OT N-OT						
0105-SGD7S-R90F30A								
Rotary motor	HBB FSTP	P-OT N-OT						

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#### 20. Now it is possible to edit parameters, take traces, etc.

Connect Disconnect	0103-SGD7W-1R6A30A700 Display Method Standard					
Axis A Axis B Axis B Rotary motor					4	
Parameters	7	Setup	7	Test Run	7	
Edit Parameters		Servopack Axis Name Setting Reset Absolute Encoder Multi-turn Limit Setup Adjust the Speed and Torque Reference Offset	*	Jog Program JOG Operation		
Alarm	7	Trace	7	Edit Table	7	
E Display Alarm Alarm Trace Reset Motor Type Alarm		Real Time Trace		<u>Edit Program Table</u> <u>Edit Zone Table</u> <u>Edit Jog Speed Table</u>		
Monitor	7	Tuning	7	Solution	7	
Read Product Information     Monitor     Monitor     Wiring Check     Online Vibration Monitor	* III *	Tuning		Mechanical Analysis Ripple Compensation		

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