MECHATOROLINK Ⅲ

Message communications

Cockpit Parts

Additional Guide

Revision History

Revision No.	Date	Descriptions
00	31/03/2016	New
01	20/10/2017	Changed Copyright as company name changed. 3-1-2. Sigma-7W and Sigma-7C added to Indirect Deveice. 4-3. Sigma-7W and Sigma-7C added to Connection Device.

Table of contents

1. Overview

This manual shows the procedure for incorporating the Cockpit Parts of Mechatrolink slave to Cockpit Parts of Mechatrolink master.

2. Slave Cockpitparts

Maker	Device
M-system Co.,Ltd.	MECHATROLINK-III I/O R7G4HML3-6-LC2
M-system Co.,Ltd.	MECHATROLINK-III I/O R7G4HML3-6-STYVS1
Azbil Corporation	High-Accuracy Position Sensors K1G Series MECHATROLINK-III Compatible
ORIENTAL MOTOR Co. , Ltd.	Stepping Motor αSTEP AZ Series　Multi-Axis Driver MECHATROLINK-III Compatible
M-system Co.,Ltd.	MECHATROLINK-III I/O R7G4HML3-6-LC2A

3. Communication Settings

3-1. Pro-EX Communication Settings

You need to register the number of devices connected to the "device specific setting" of "Communication Settings" of GP-Pro EX.
But if you don't monitor status of the MP3000 controller, you don't have to register it as a connected device.
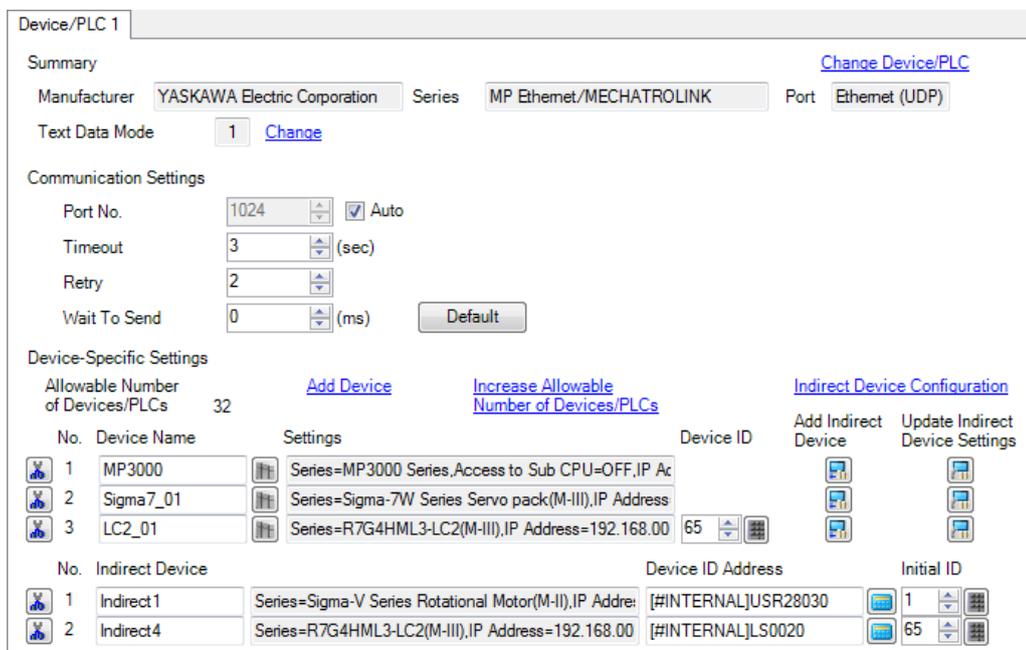
Figure 3-1 GP-ProEX Communication Settings

3-1-1. Individual Device Settings

Add a device. Register each connected device. Enter the each unit's station address for Station Address.
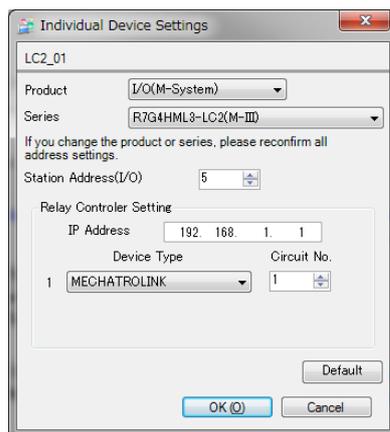
Figure 3-2 Individual Device Settings

3-1-2. Indirect Device Settings

Specify a device ID from 1 to 128 preventing duplication.
The sample screens were created for a single unit connection with using Indirect Device Settings, but more than one unit can be easily connected with using 'Indirect Device Settings'. In the "System Settings", perform 'Add Device' and specify a device ID address for screens.
"Indirect Device" and "Device ID Address"   must be value of following table.

| Maker	Device	Indirect Device	Device ID Address
YASKAWA Electric Corporation	Sigma-7 Series AC Servo Drive Sigma-7S SERVOPACK	Indirect1	USR28000
Azbil Corporation	High-Accuracy Position Sensors K1G Series MECHATROLINK-III Compatible	Indirect2	USR28010
ORIENTAL MOTOR Co.,Ltd.	Stepping Motor αSTEP AZ Series Multi-Axis Driver MECHATROLINK-III Compatible	Indirect3	USR28020
M-System Co.,Ltd.	Compact remote I/O Unit R7G4HML3-6-LC2	Indirect4	USR28030
M-System Co.,Ltd.	Compact remote I/O Unit R7G4HML3-6-STYVS1	Indirect5	USR28040
M-System Co.,Ltd.	Compact remote I/O Unit R7G4HML3-6-LC2A	Indirect6	USR28050
YASKAWA Electric Corporation	Sigma-7 Series AC Servo Drive Sigma-7W SERVOPACK	Indirect7	USR28060
YASKAWA Electric Corporation	Sigma-7 Series AC Servo Drive Sigma-7C SERVOPACK	Indirect8	USR28070

4. Screen Configuration

4-1. Base screen transition

Source project
(Figure:MP3000 Top screen)
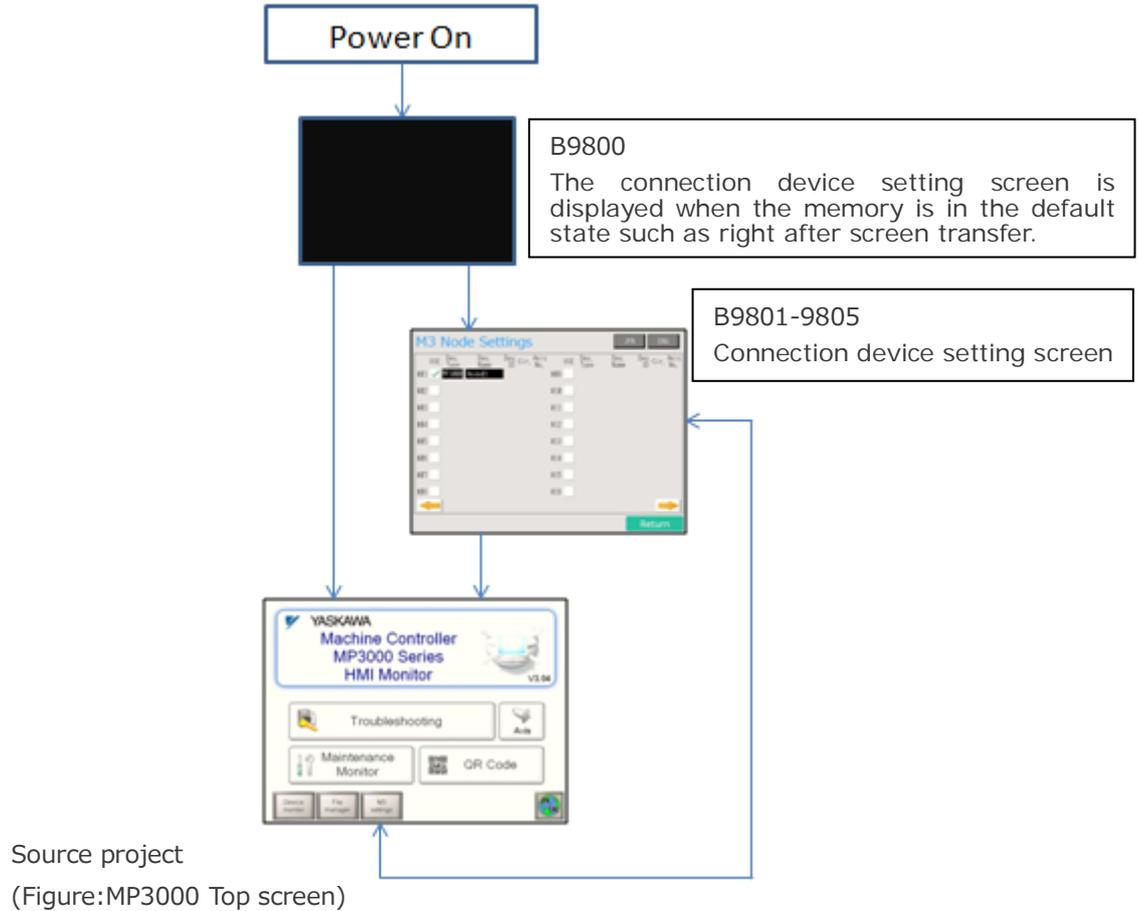
Figure 4-1 Screen transition

4-2. Base screen list

Table 4-1 Base screen list

Base No.	Title	Descriptions
B9800	Node settings init Initial screen	Configure initial settings of M3 devices. It's a start screen of the sample project file.
B9801 -B9805	Node settings	Registration screen of M3 devices This sample project will not run if the screen settings are not correctly configured. The setting contents are stored.

Table 4-2 Window screen list

| Window No.	Title	Descriptions
W1950	Node Type	Select M3 devices. MP3000/Sigma-7/K1G/AZ/LC2/STYVS1/LC2A
W1951 -W1960	–	Displays setting errors of the M3 Node settings screen.

4-3. Operation
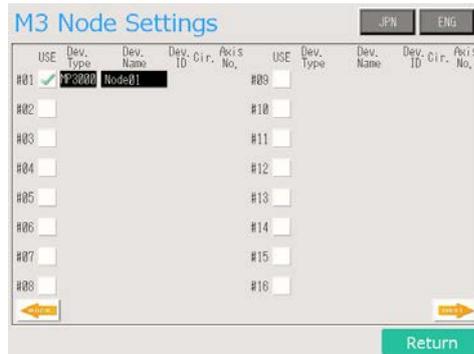
Figure 4-2 Default
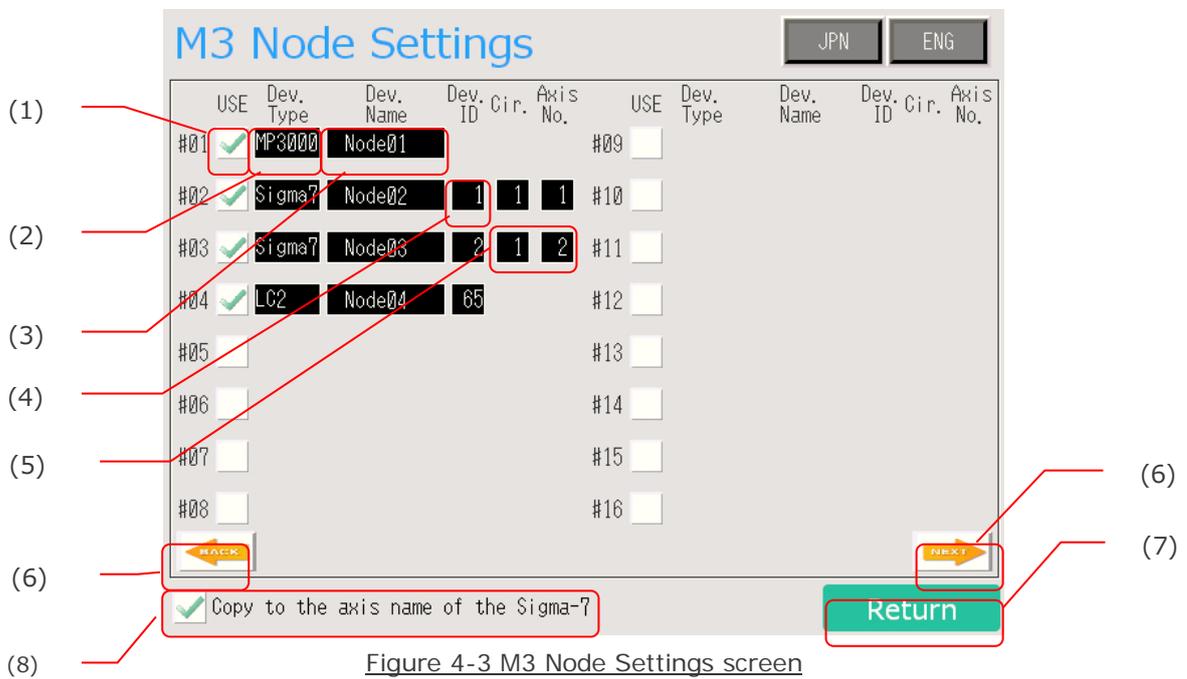
Figure 4-3 M3 Node Settings screen

Table 4-3 Details of functions

№	Name	Details of functions
(1)	USE	Check a box on the left of a node to be used.
(2)	Connection device	Select a device to be connected. MP3000/Sigma-7/K1G/AZ/LC2/STYVS1/LC2A
(3)	Device name	Specify a name that is displayed on the node select window. It does not have to be the same name as that of GP-Pro-EX Device/PLC settings.
(4)	Device ID	Enter the device ID number specified in the GP-Pro-EX Device/PLC settings. Not necessary for MP3000.
(5)	Circuit/Axis No.	Specify a circuit number and an axis number of Z-7. Needed for combining MP3000 sample screens.
(6)	Change pages	Specify 16 nodes per page. Up to 64 can be specified.

(7)	Return	Return to the user's screen. Move to the screen assigned in the _Node_Set_Return_Screen variable. On the Return-to screen, enter the current screen number in the _Node_Set_Return_Screen variable.
(8)	Copy Axis Name	If checked, copy to the axis name of the Sigma-7.