FASTECH
Fast, Accurate, Smooth Motion Control

Confidential

Ezi-SERVOII-EC Operation manual for LS Mecapion < 'MXP' >

Ezi-SERVO®
Closed Loop Stepping System

▣ MXP EtherCAT Master component

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❑ Check the contents of product and install the product when purchasing the MXP .

** MXP Download path : http://www.lsmecapion.com /contents/sub02/sub03_08.php

** Trial Version can supporting

Component fig	Description
	Install Program USB /1EA. (The USB with LS Mecapion Logo printed.)  ** Please refer to the directory below Manual₩Install
	MXP Lock key USB. (The USB with MXP product serial number attached)
	RTX Lock key USB. . (The USB with MXP product serial number attached)
Manual	Installation manual

Table 3- Product Component

Ezi-SERVO®
Closed Loop Stepping System

▣ MXP-RAS execution – ENI file creation

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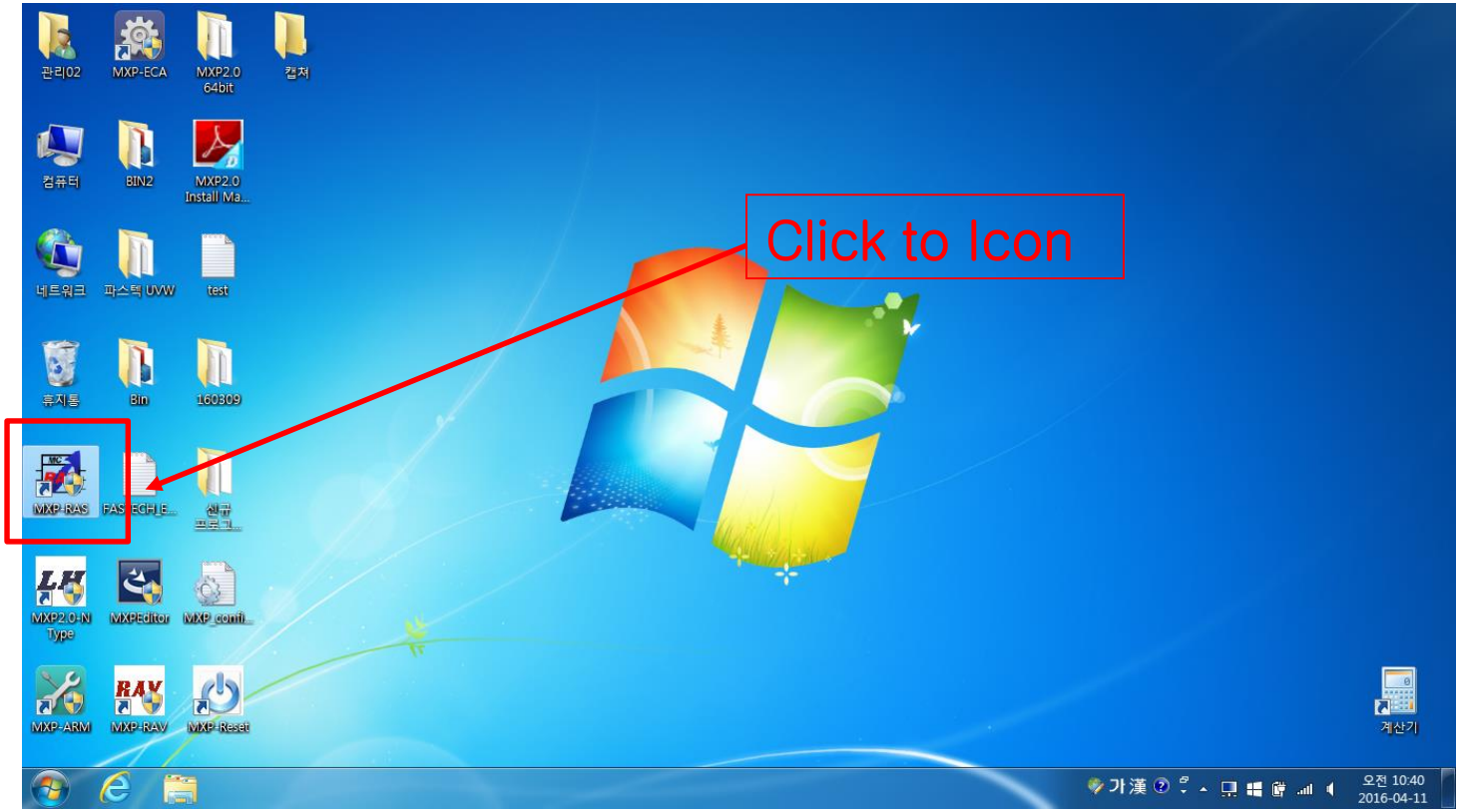
❑ Start up by User authority after installed MXP-RAS program to PC

** ENI file creation (Registration of Slave status information)



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▣ MXP-RAS execution – ENI file creation

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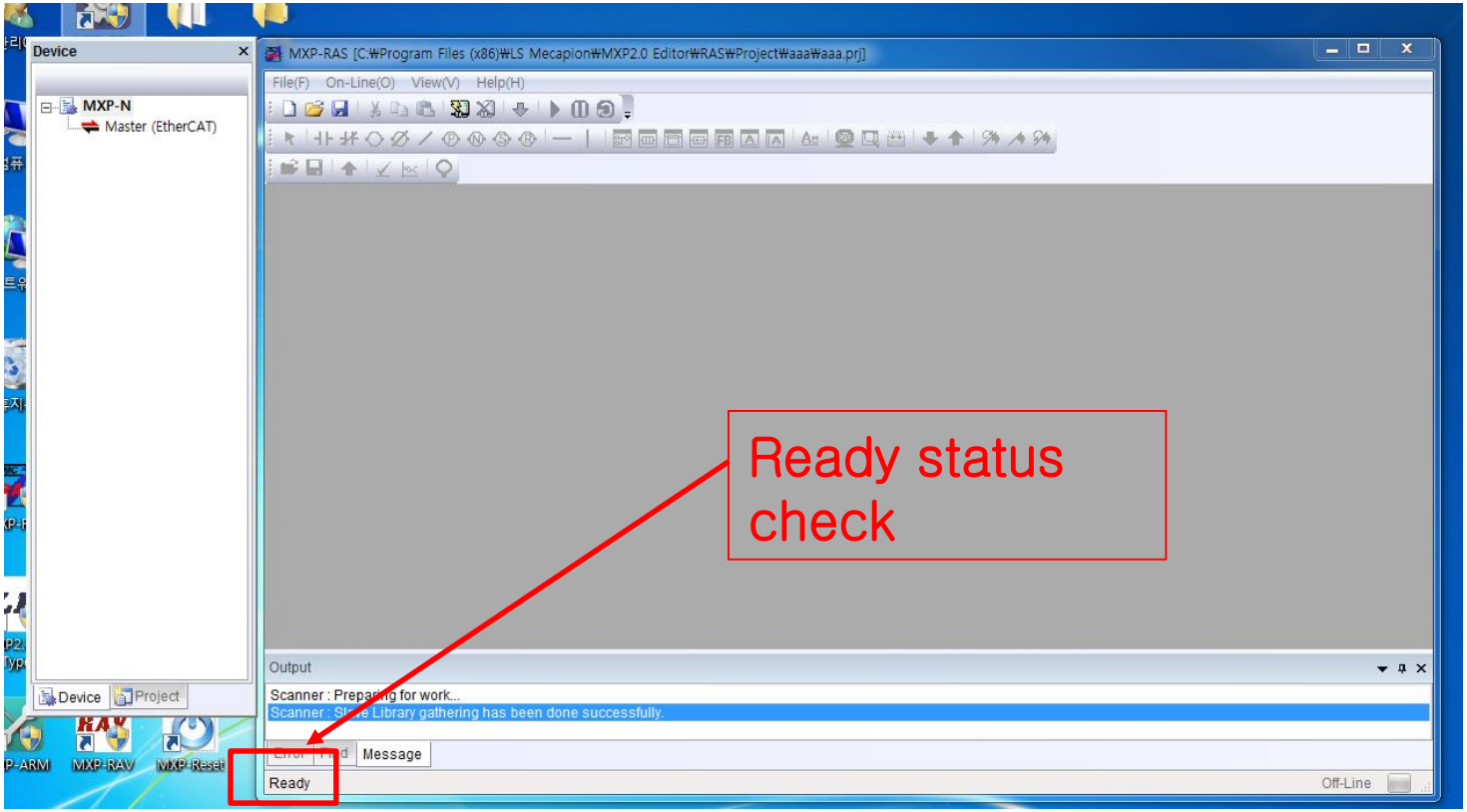
❑ Ready status check after MXP-RAS execution.
❑ Ready status can be delayed according to PC environment, please check ready status before progress to next step.



▣ MXP-RAS execution – ENI file creation

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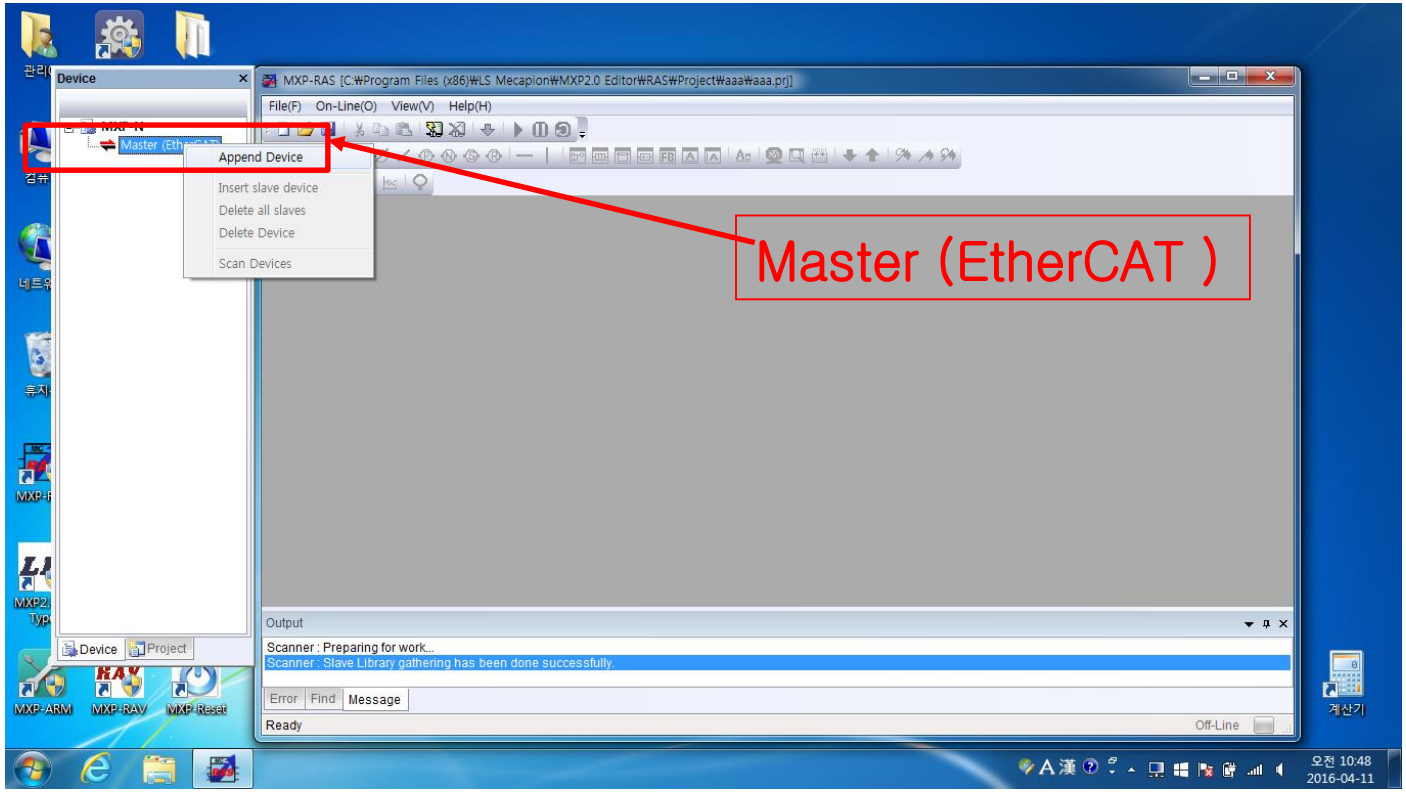
❑ Click to right button of mouse from the activated Master(EtherCAT) category.

❑ Select to Append Device



▣ MXP-RAS execution – ENI file creation

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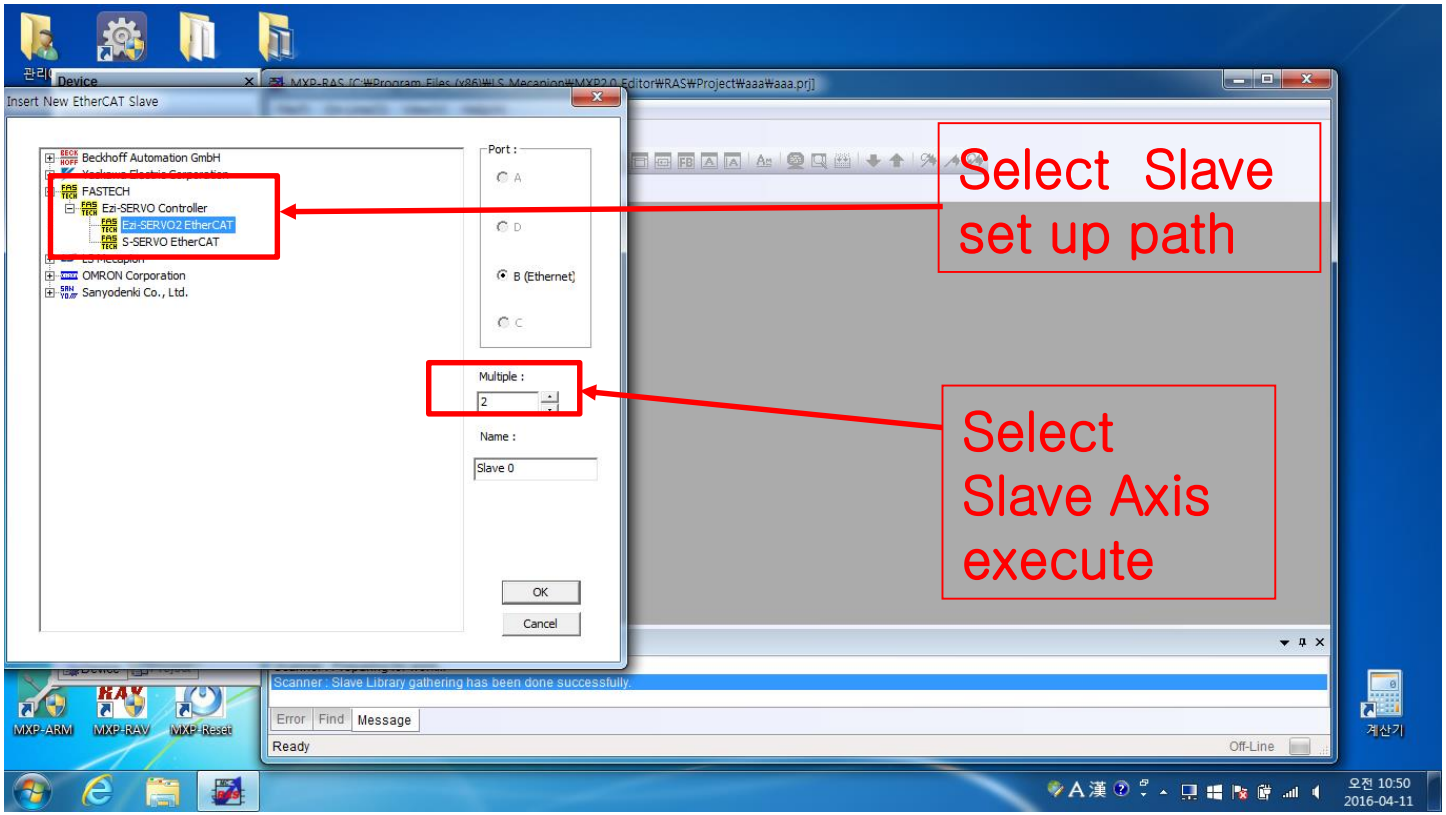
❑ Set up the path through by activated FASTECH -> Ezi-SERVO Controller -> Ezi-SERVO2 EtherCAT. And select to linked Slave Axis



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▣ MXP-RAS execution – ENI file creation

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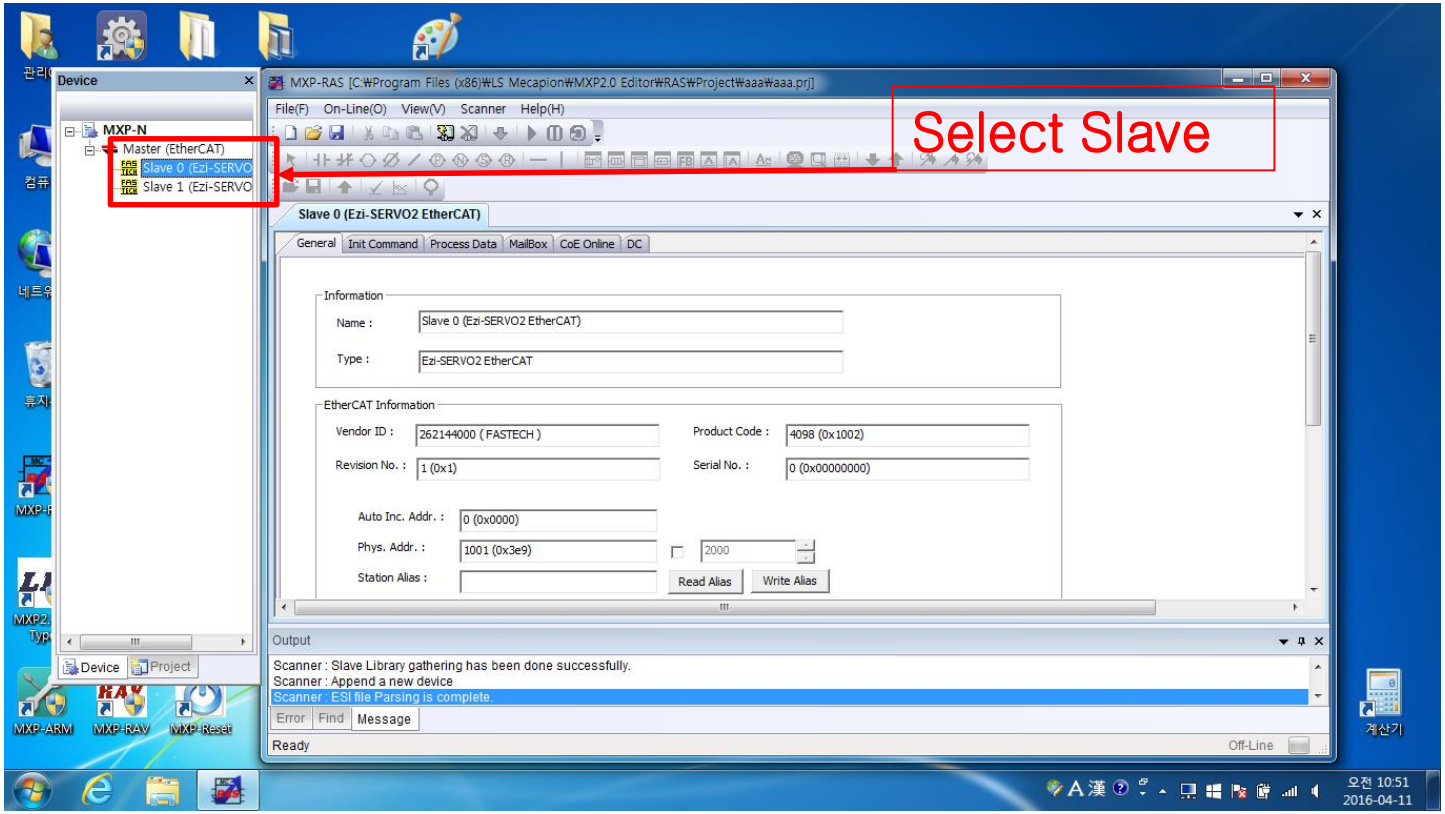
❑ Mode setting for each slaves.



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▣ MXP-RAS execution – ENI file creation

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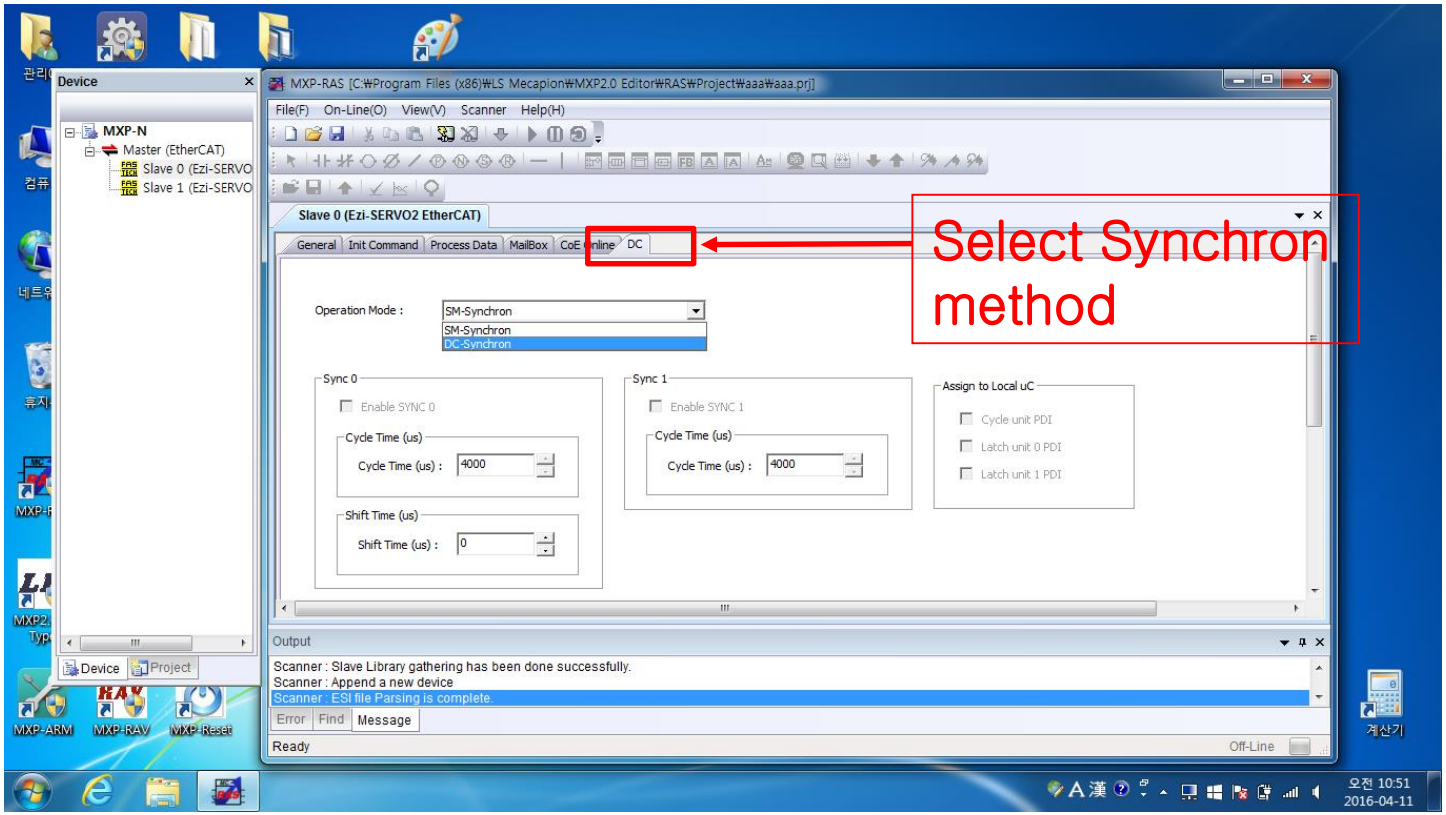
- ❑ Select DC Synchron from the SM Synchron, DC Synchron method
- ❑ Slave 0, 1 set up , all slave set up method is same.



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▣ MXP-RAS execution – ENI file creation

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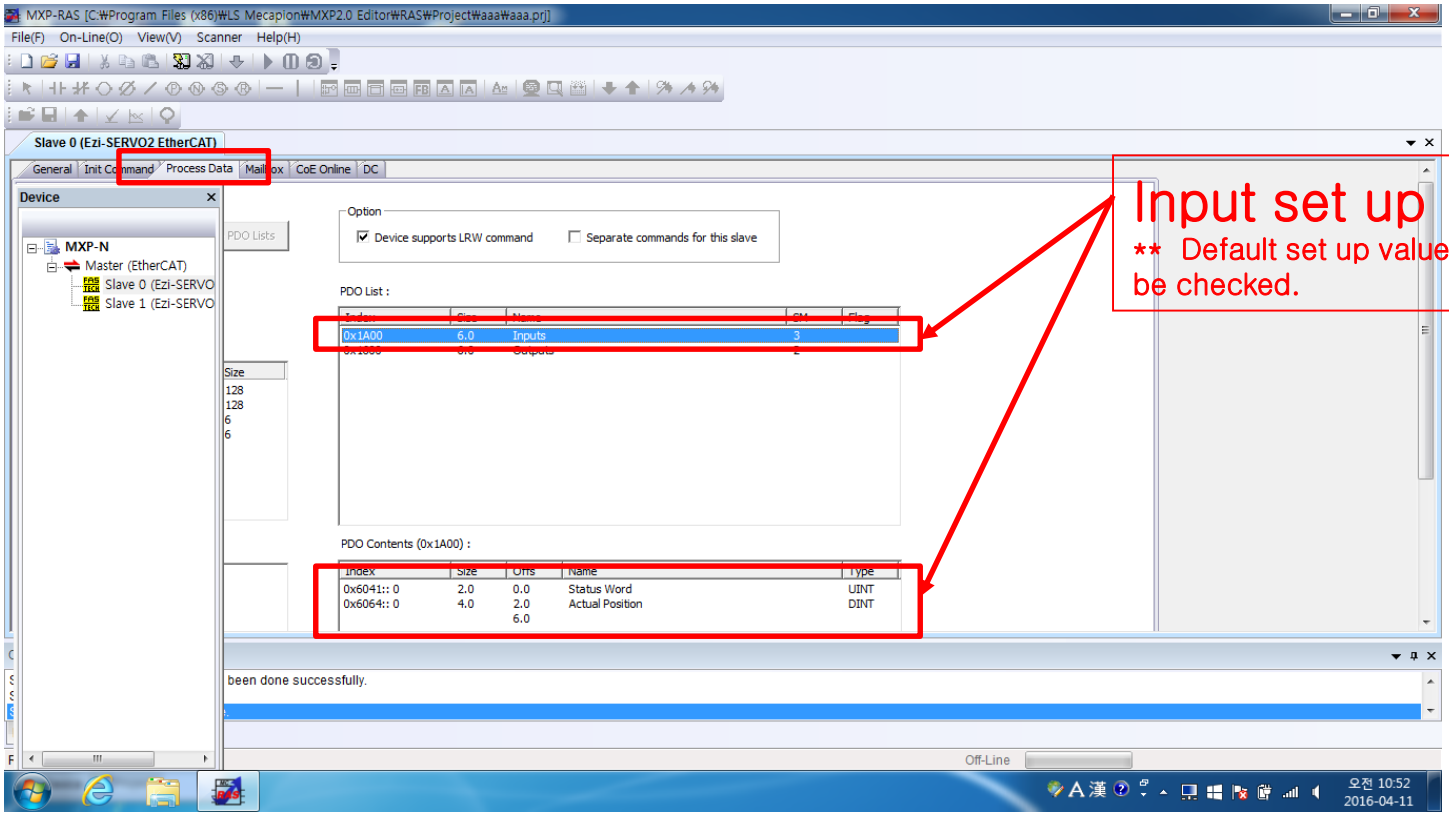
❑ After setting Input from PDO List for PDO Mapping in Process Data , Confirm the default setting in PDO Contents below.



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▣ MXP-RAS execution – ENI file creation

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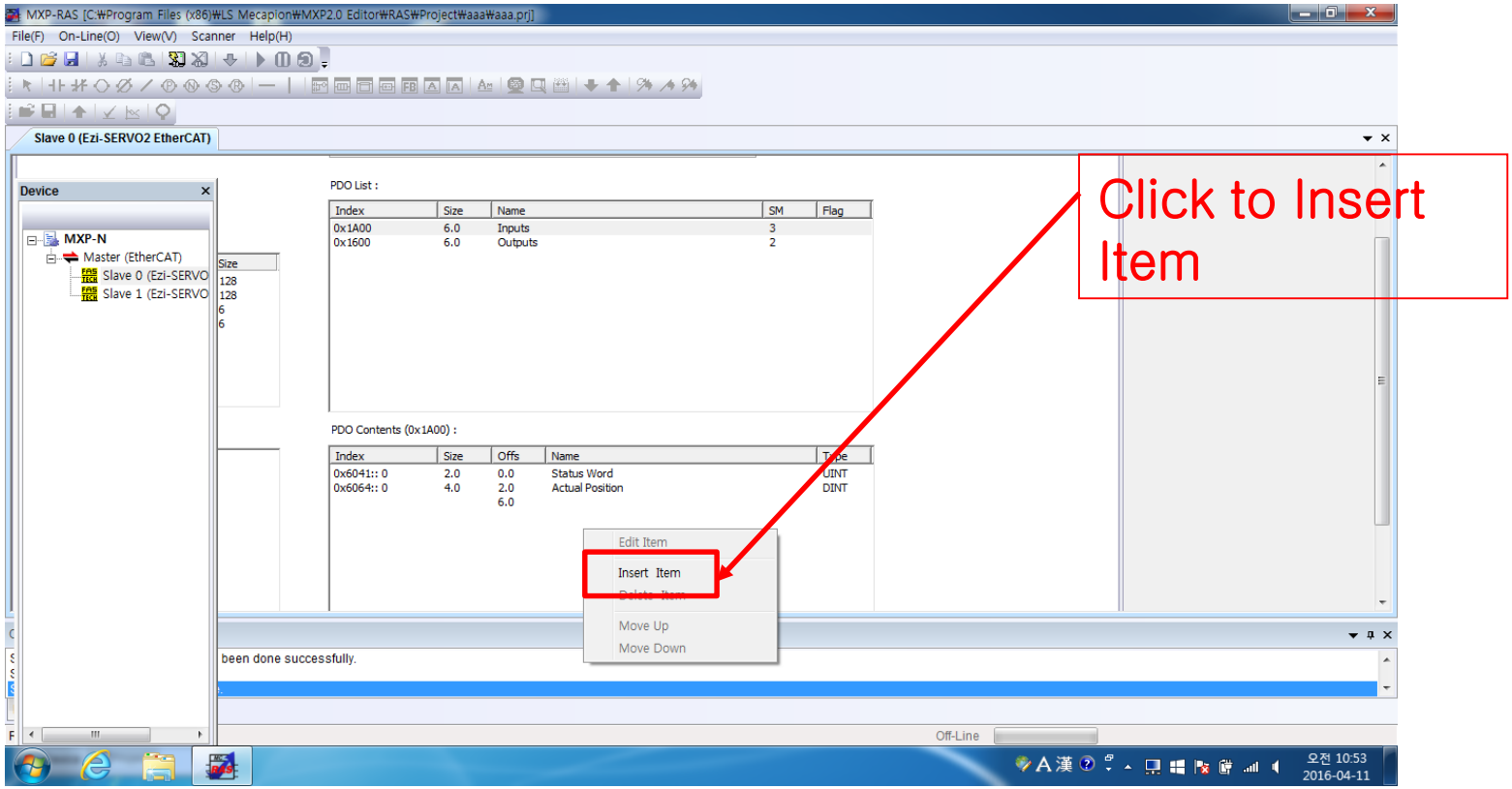
❑ Right mouse button click on the below PDO Contents box for Input PDO Mapping .

❑ Click to Insert Item .



▣ MXP-RAS execution – ENI file creation

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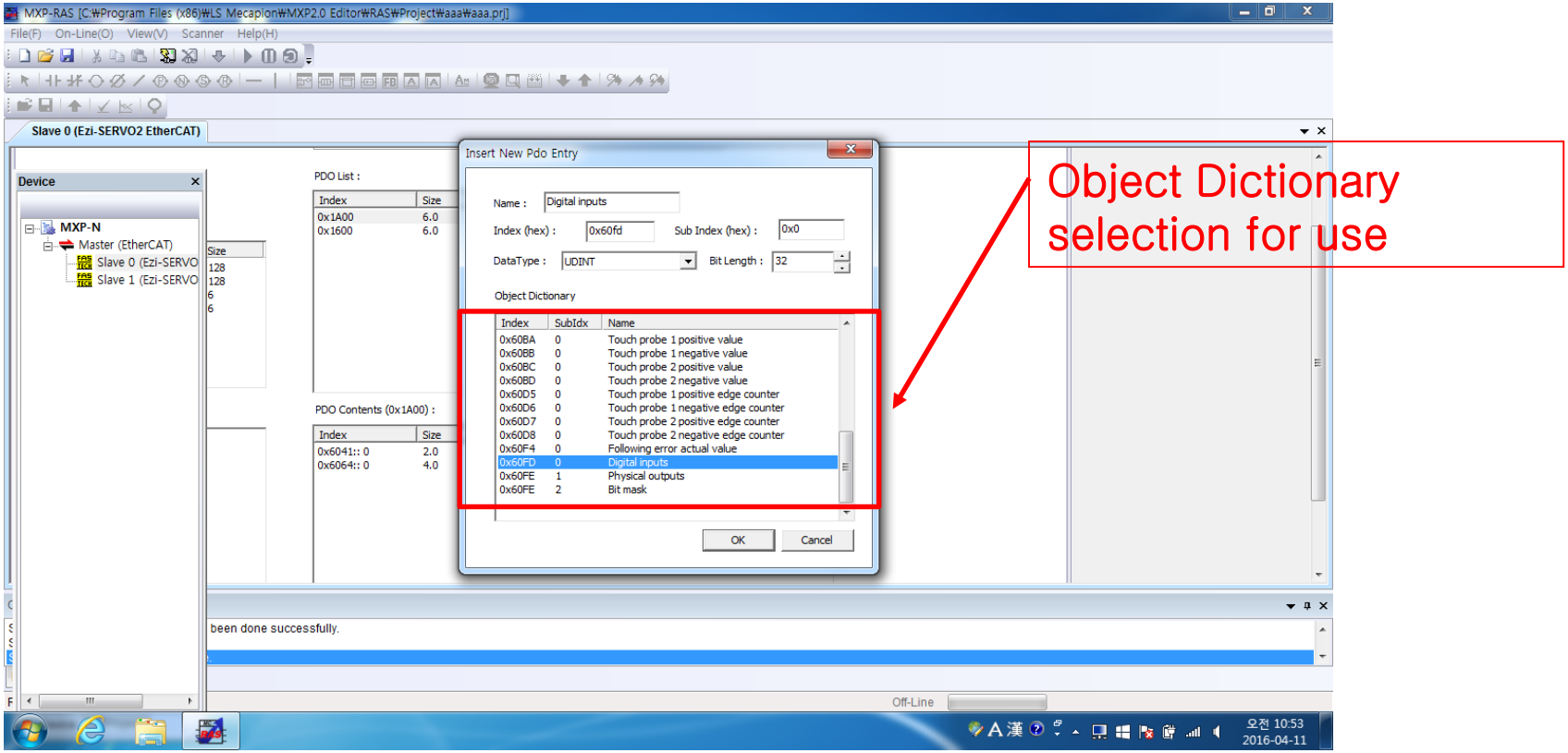
❑ Select Object Dictionary . (ex. Digital Input)

**** Precaution : When selectin the Object Dictionary , Input & opyput will appear in the window at the same time, When Assigning the input command to out put command , communication does not working normally.**



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▣ MXP-RAS execution – ENI file creation

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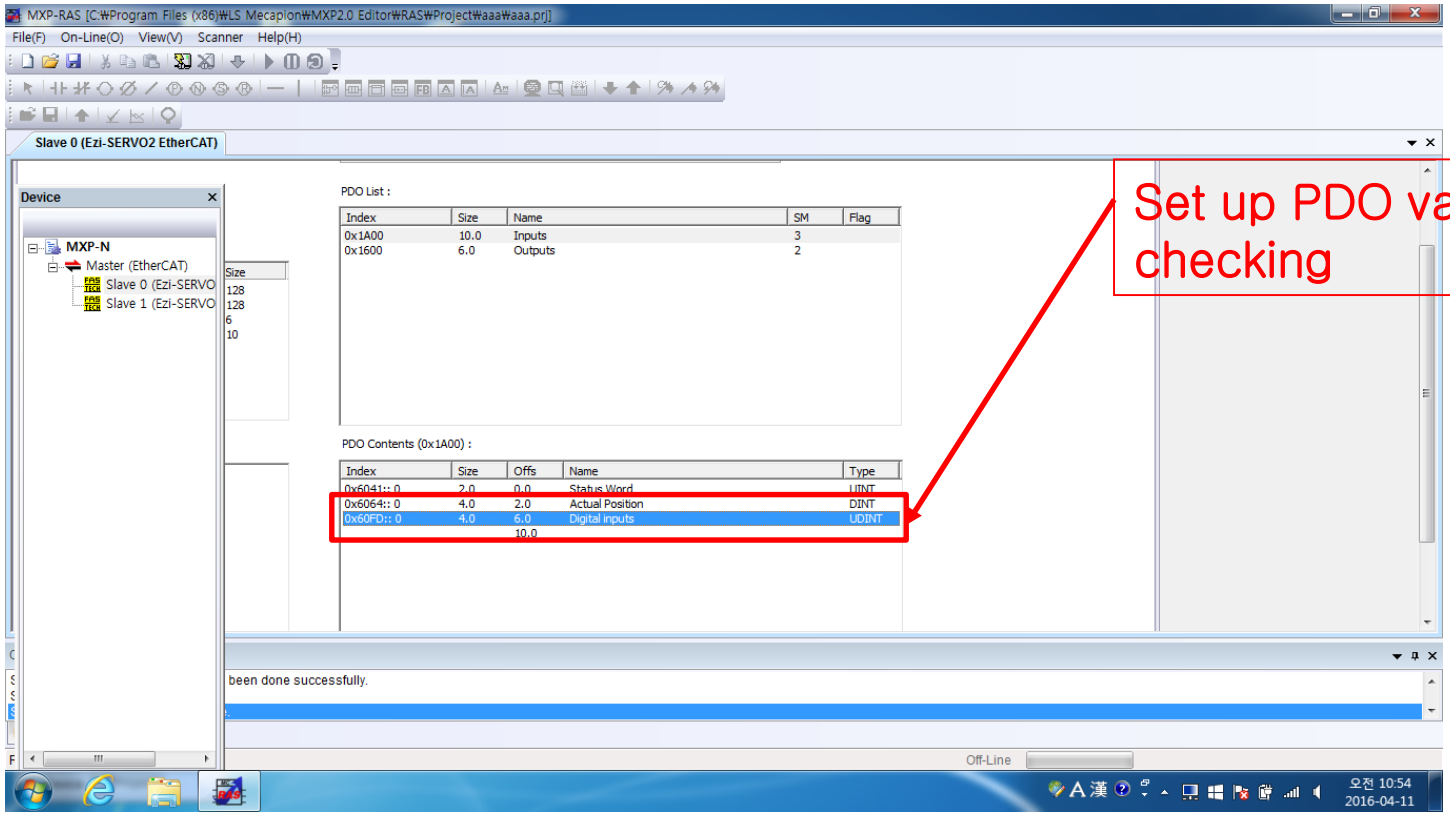
❑ Select the necessary PDO for input in the same way.



MXP-RAS execution – ENI file creation

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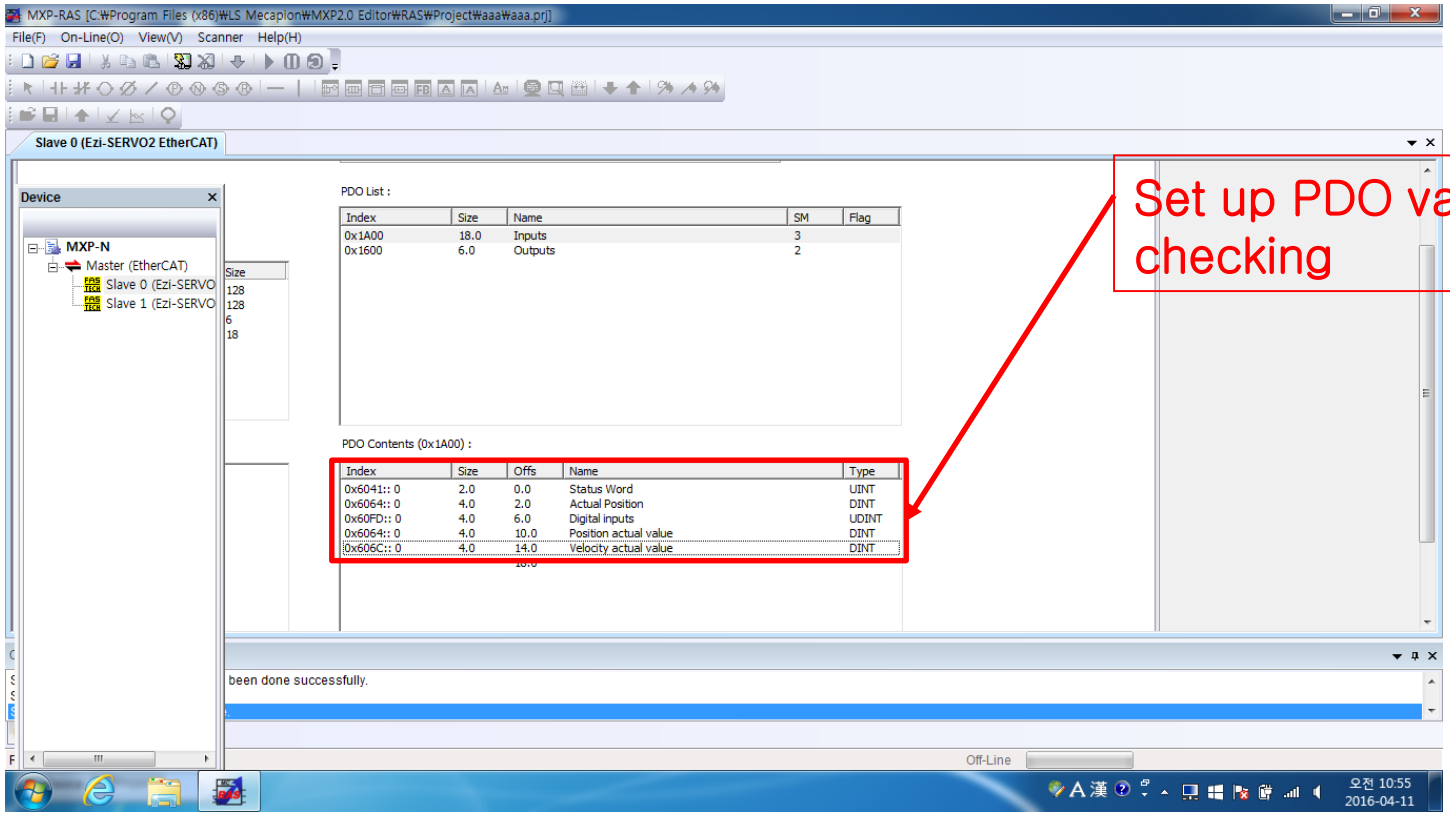
❑ Select the necessary PDO for input in the same way.

** ex) Selects the Digital input / Position actual value / Velocity actual value



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▣ MXP-RAS execution – ENI file creation

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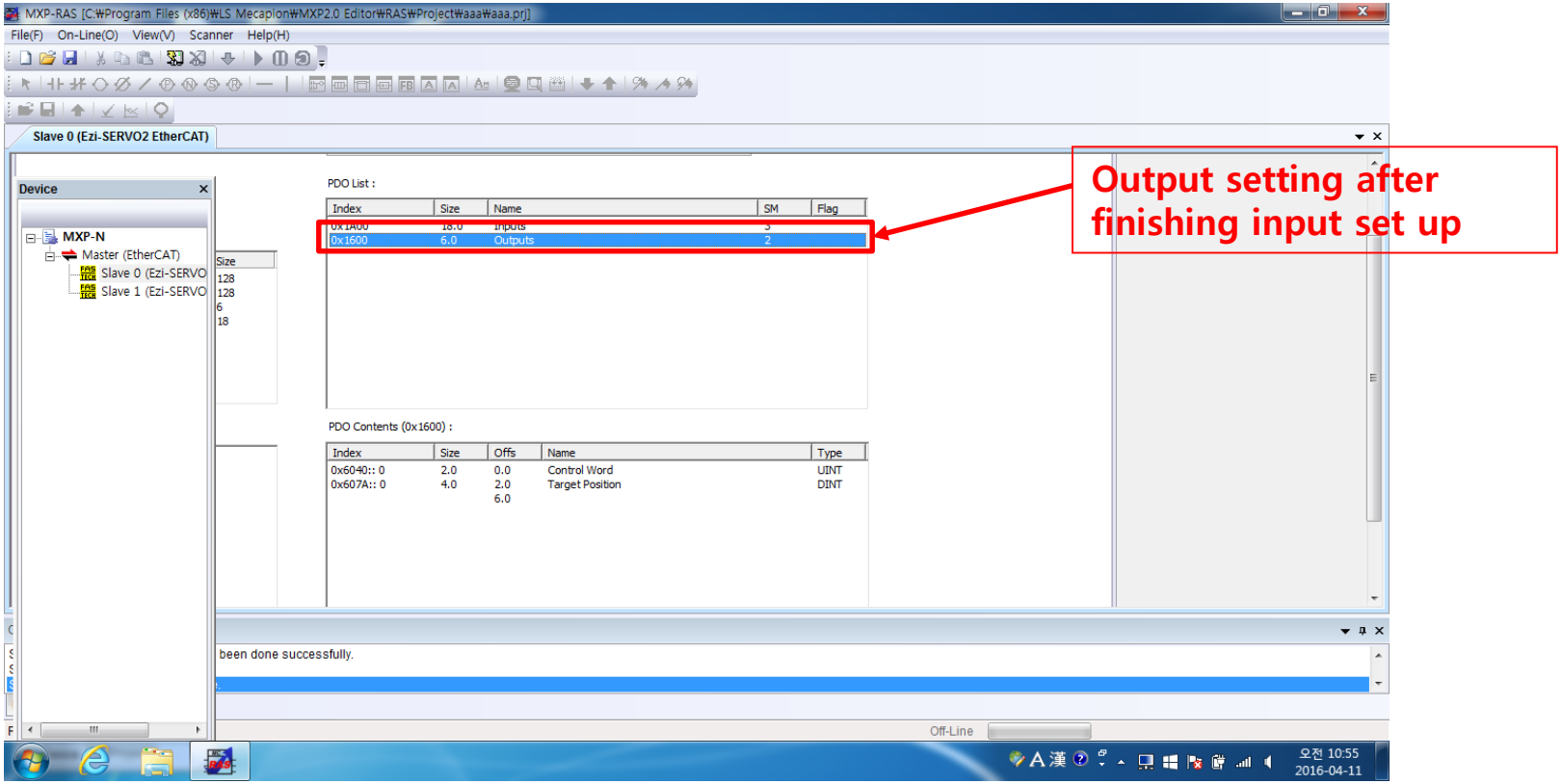
❑ After Input settings finished, click on the top of the PDO List for the Output Settings.



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▣ MXP-RAS execution – ENI file creation

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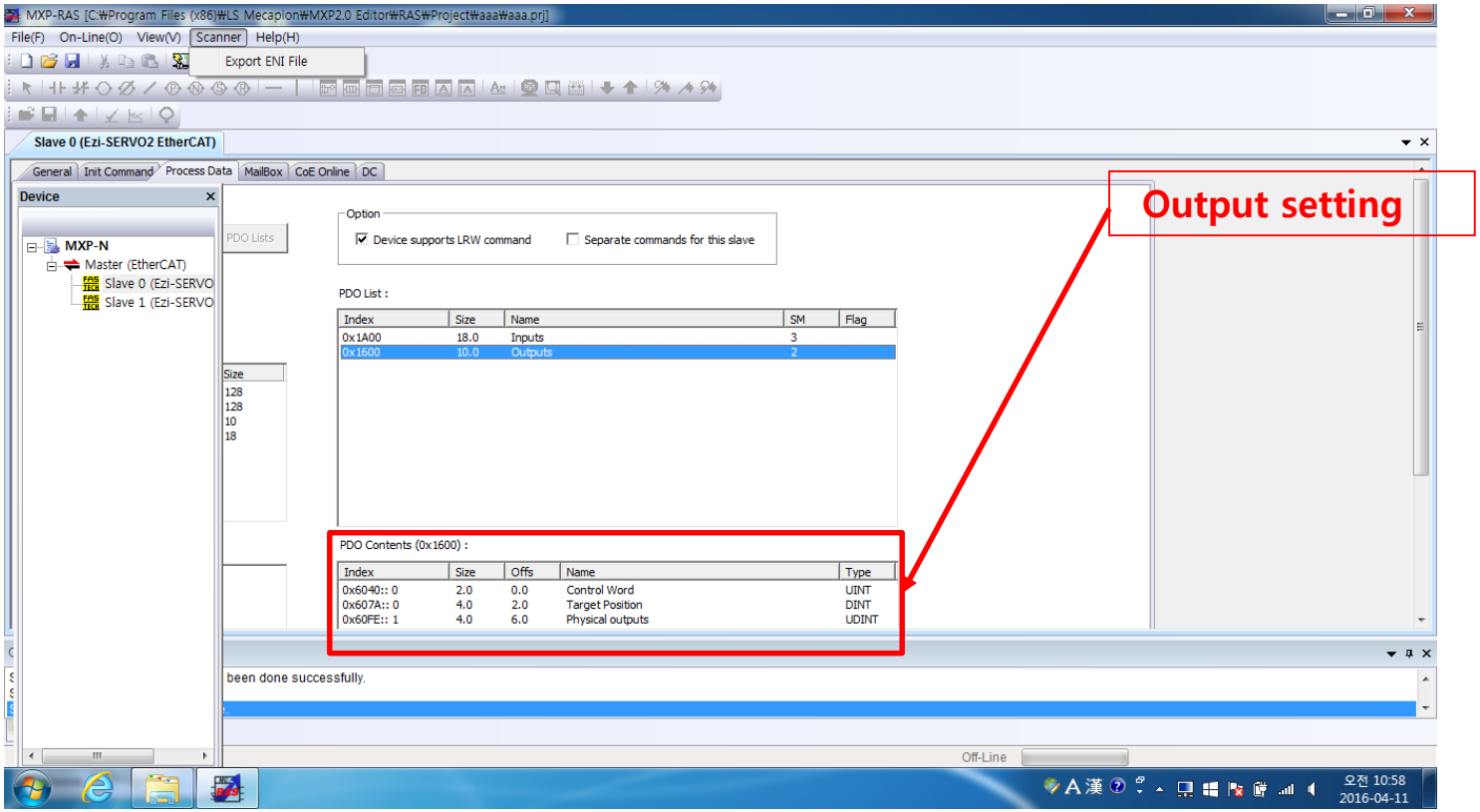
- ❑ Click to right mouse button on the PDO Contents
- ❑ List checking after selecting the necessary Output .

** Precaution : Communication does not work when click to Input range of Contents .



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▣ MXP-RAS execution – ENI file creation

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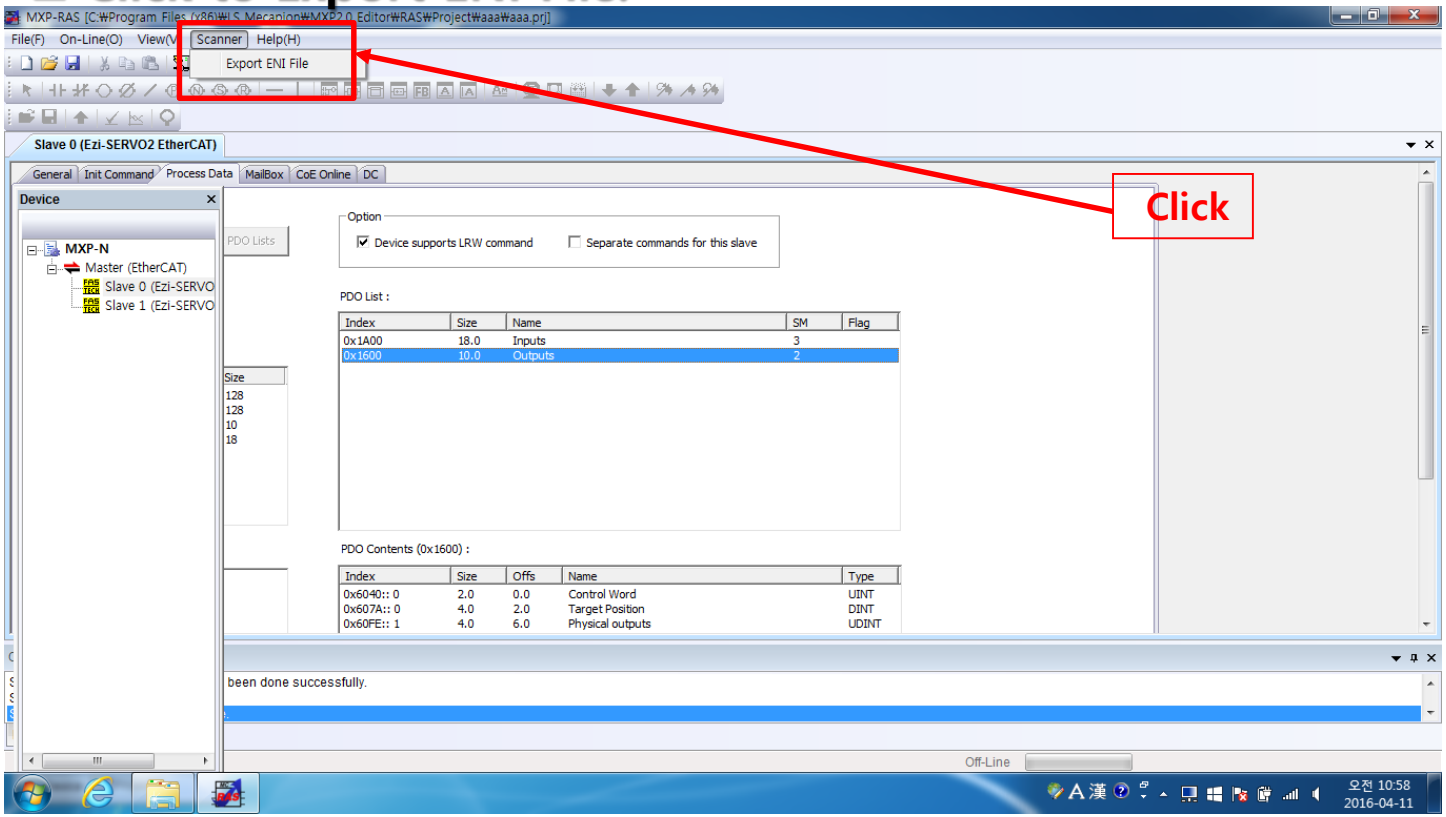
❑ After PDO Mapping complete , then click the top of the Scanner to save the file to the ENI.

❑ Click to Export ENI File.



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▣ MXP-RAS execution – ENI file creation

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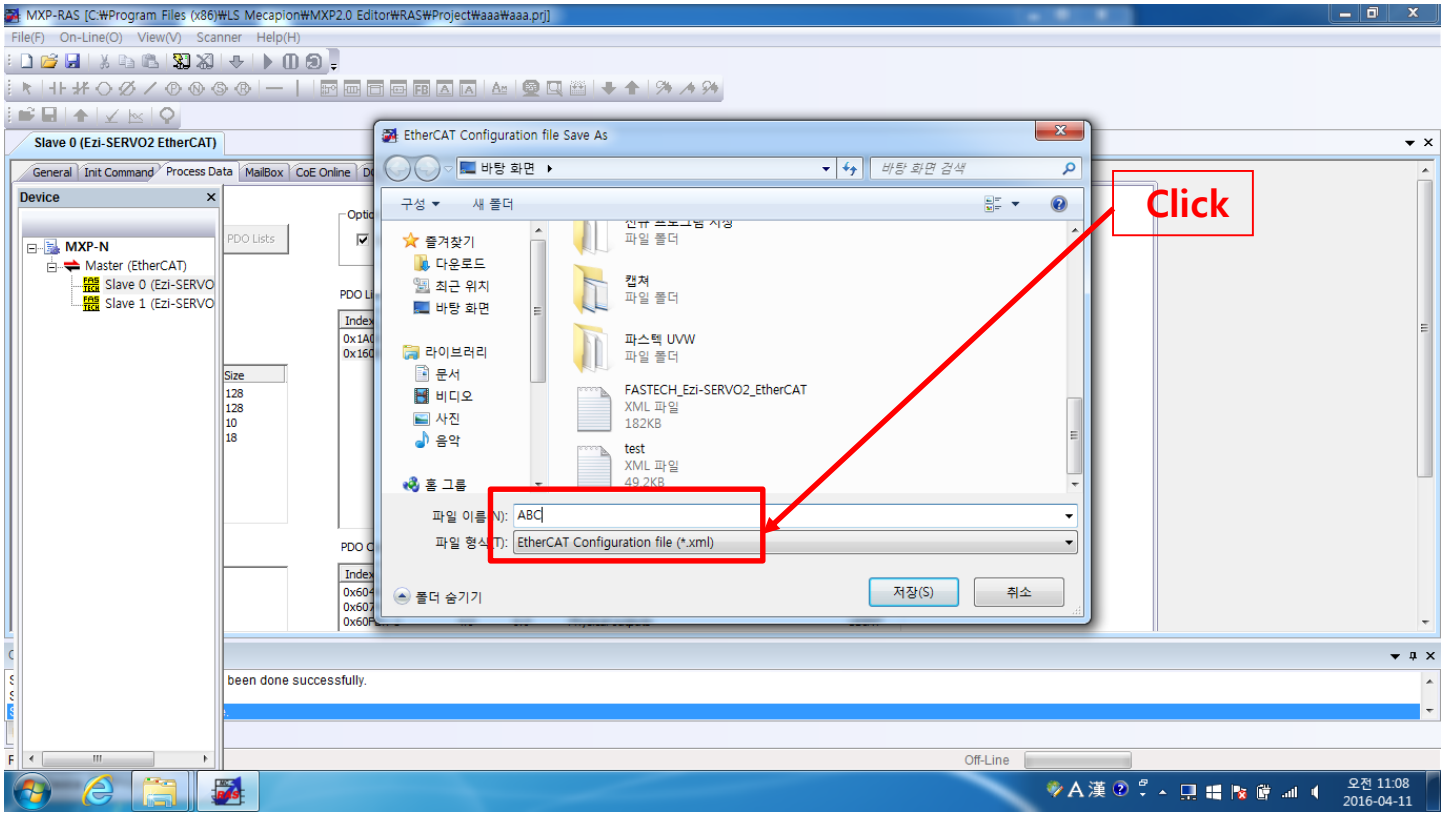
❑ Save the ENL file as EtherCAT Configuration file (*.xml) format.



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▣ MXP-ARM execution

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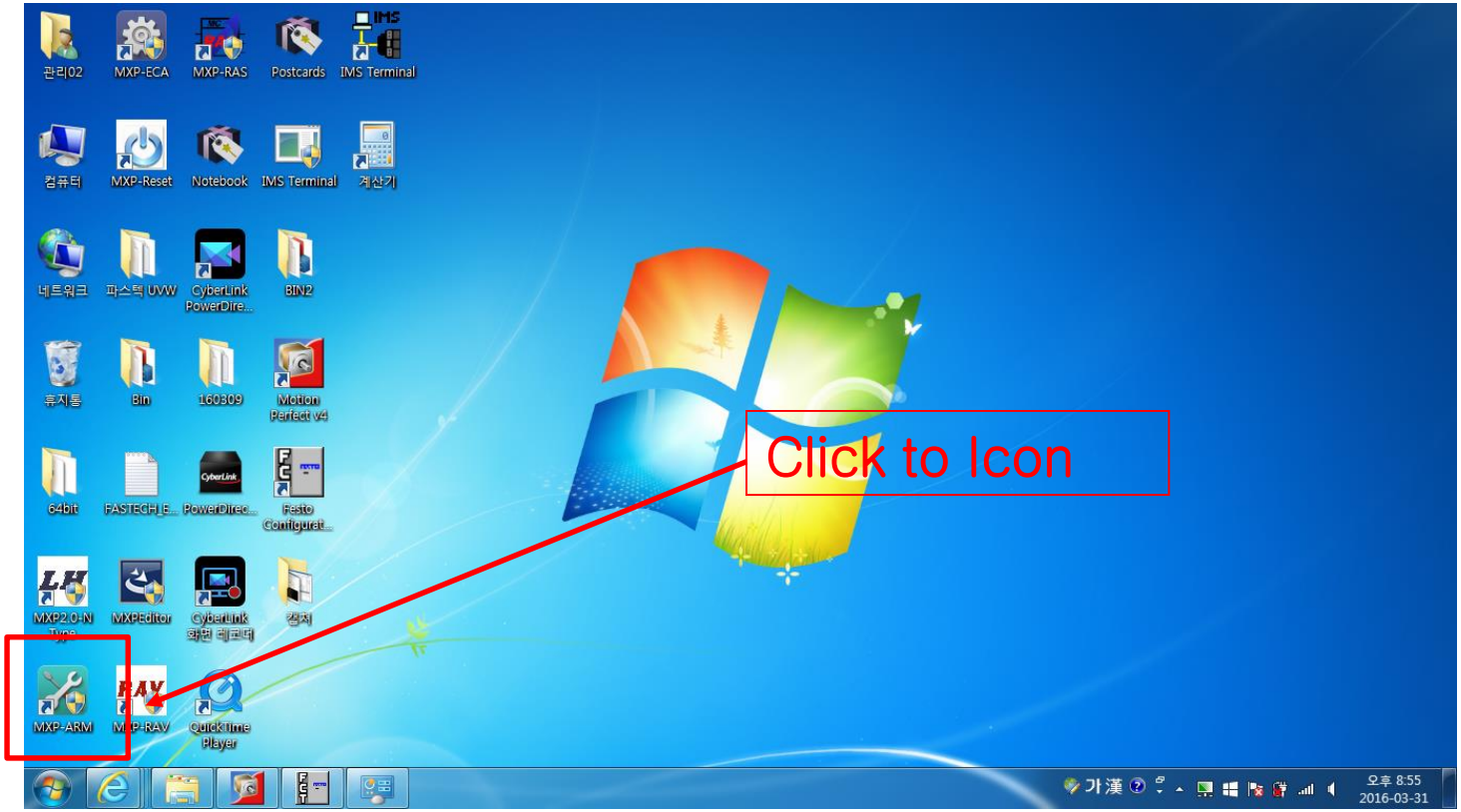
❑ Start up by User authority after installed MXP-ARM program to PC

** Trial Version can supporting



▣ Load ENI

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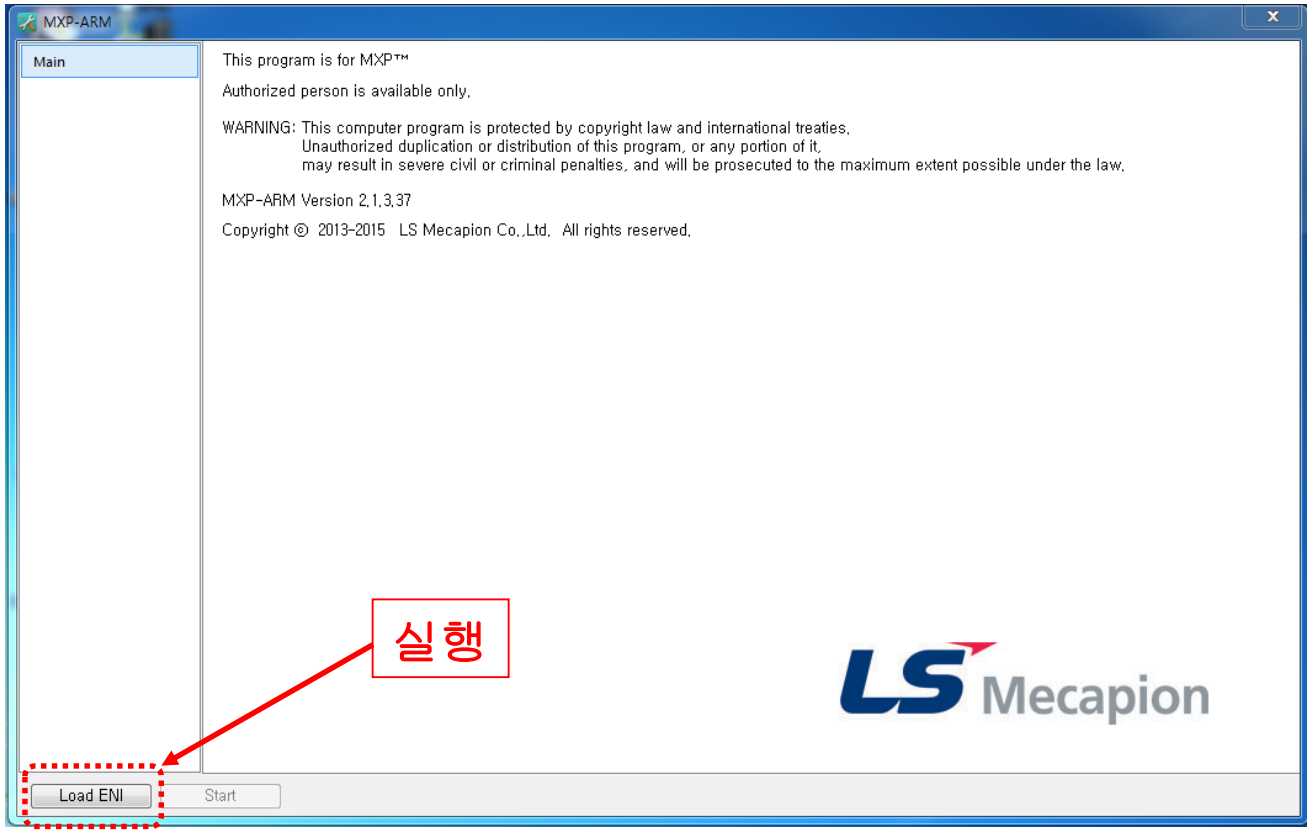
❑ Click to 'Load ENI' button

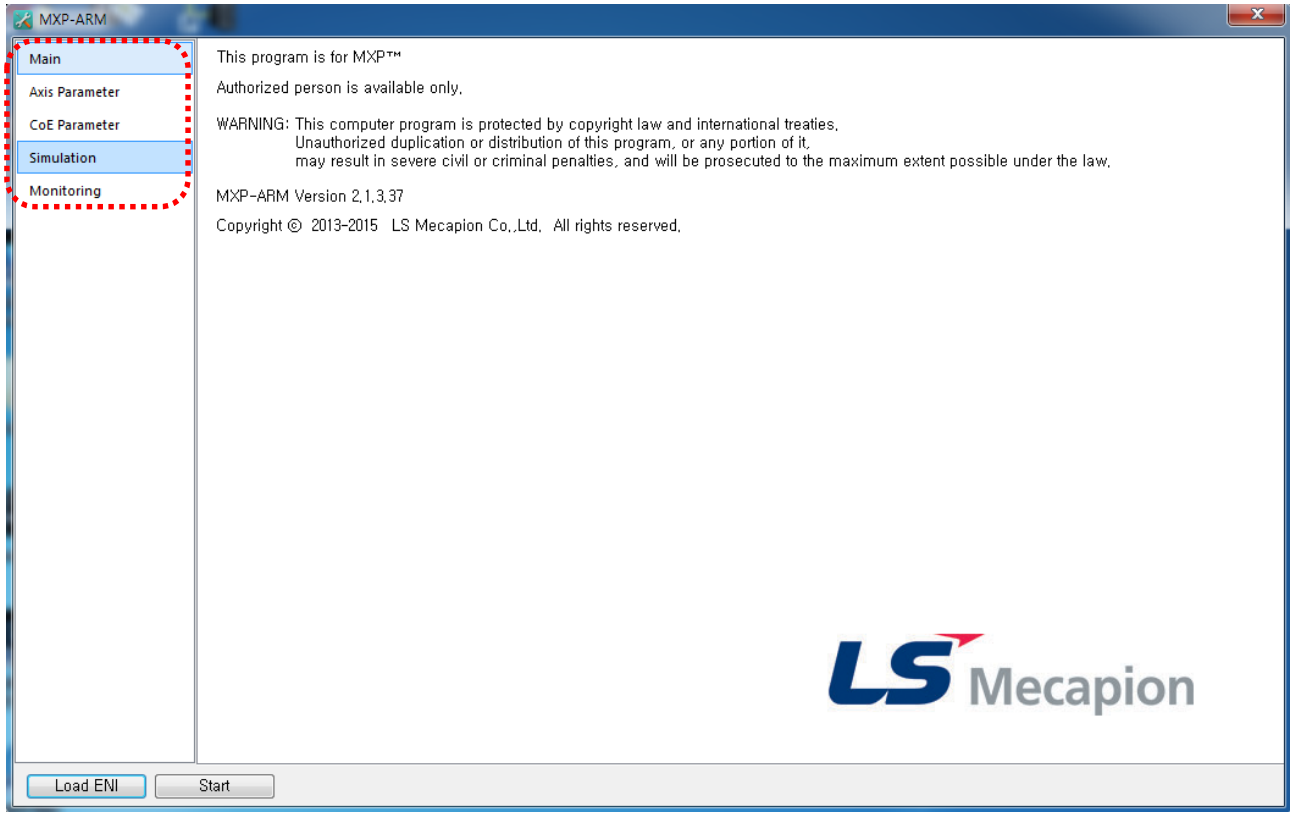
❑ ** Recreation needed whenever changing the allocated Slave axes and equipment APP. Environment.
** Loading the pre-built ENI file .



▣ Verifying communication connection

❑ 5 Cegories are created as left window status when communication connetion is normal status between MXP Master, Ezi-SERVOII-EC Slave .

** If power is not supplied and Salve Cable is not connected normally, categories are not created (Restart required after checking)



1. Axis Parameter

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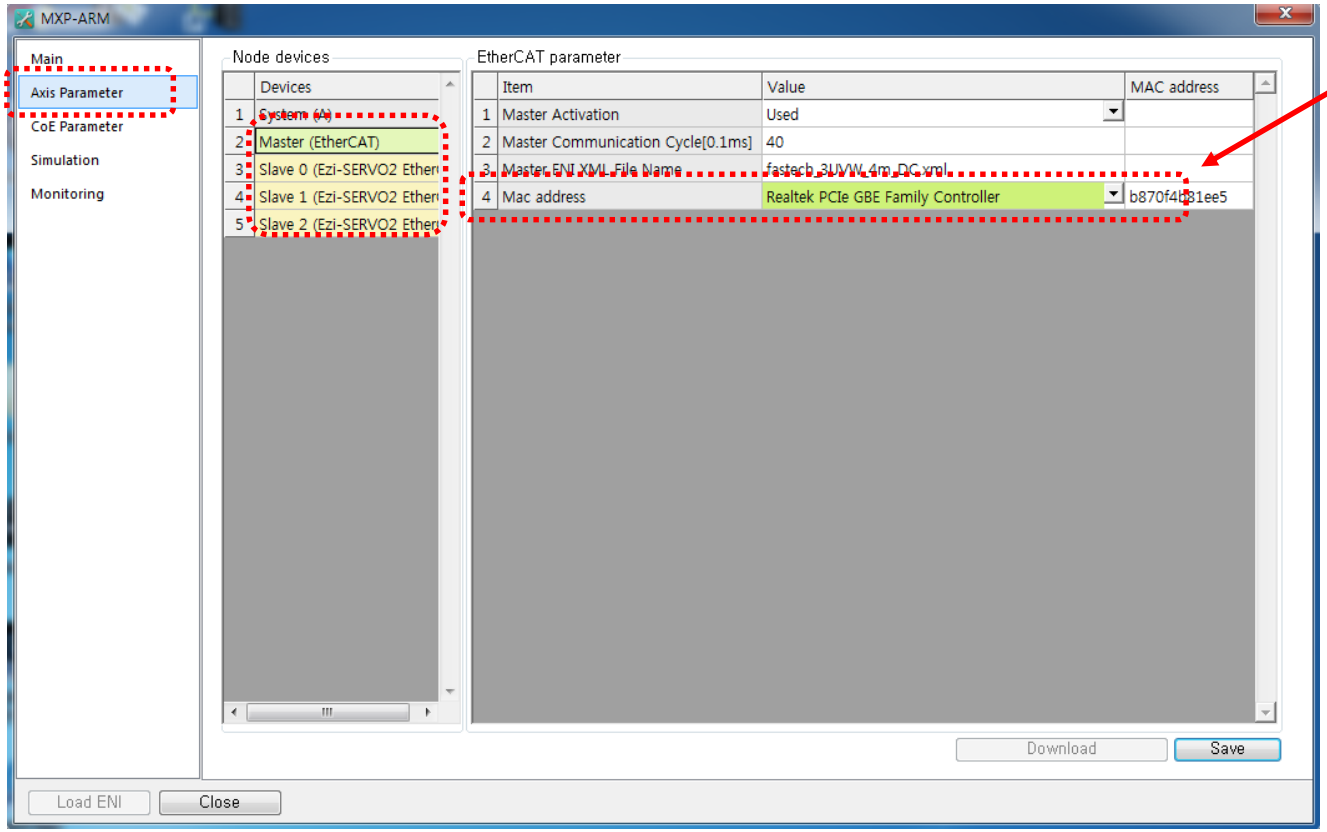
❑ Node devices created when Axis Parameter execution, Master to connect to devices & searched Slave information can be checked .

** Scan for Slave Drive



Mac address :
It is possible to check Lan Card information of using PC

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1. Axis Parameter [Slave Scan]

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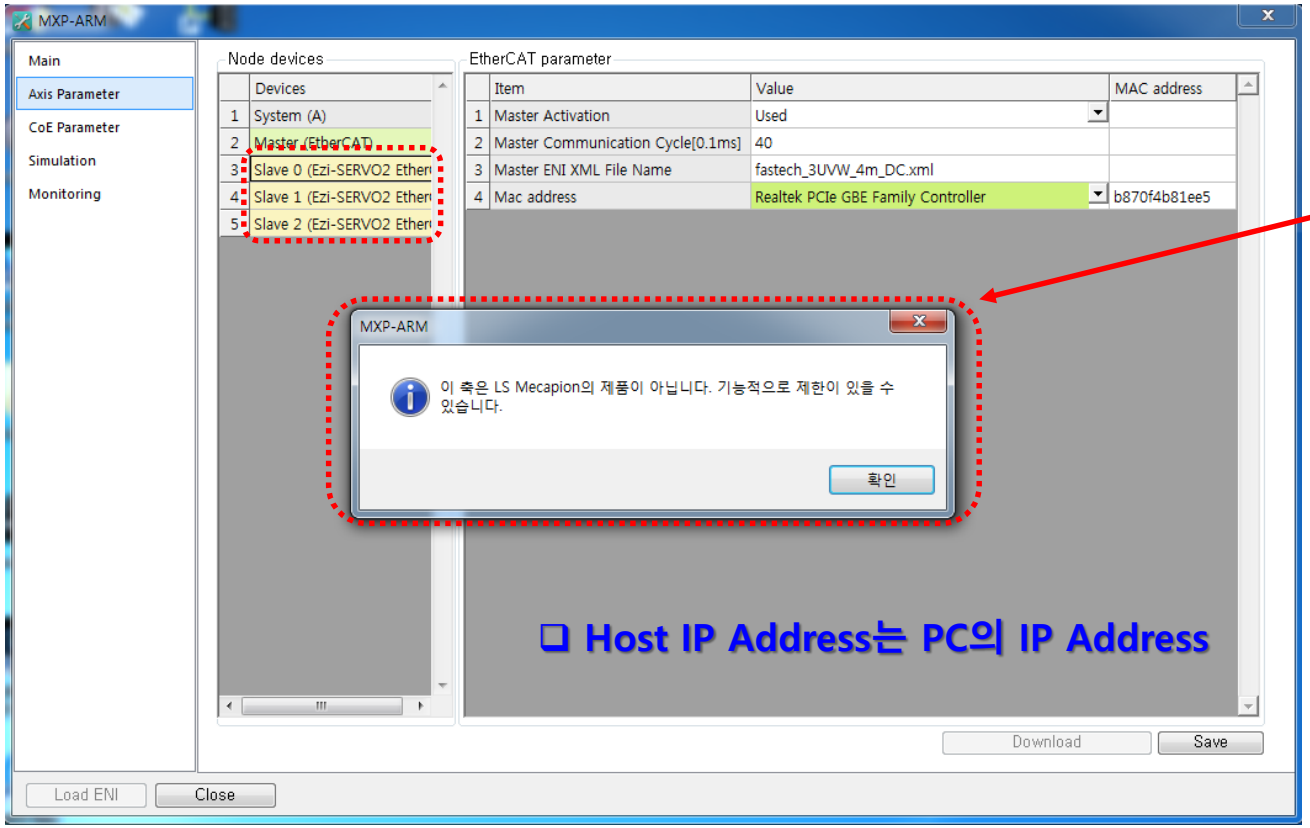
❑ When running the Scan Slave, it will generate a warning window, as shown in the figure , This warning window will be floating when use of Ezi-SERVOII-EtherCAT Slave of FASTECH . It is not a problem in the Test



Warning message when using the other product not to use the LS MECAPION Slave

1. Axis Parameter

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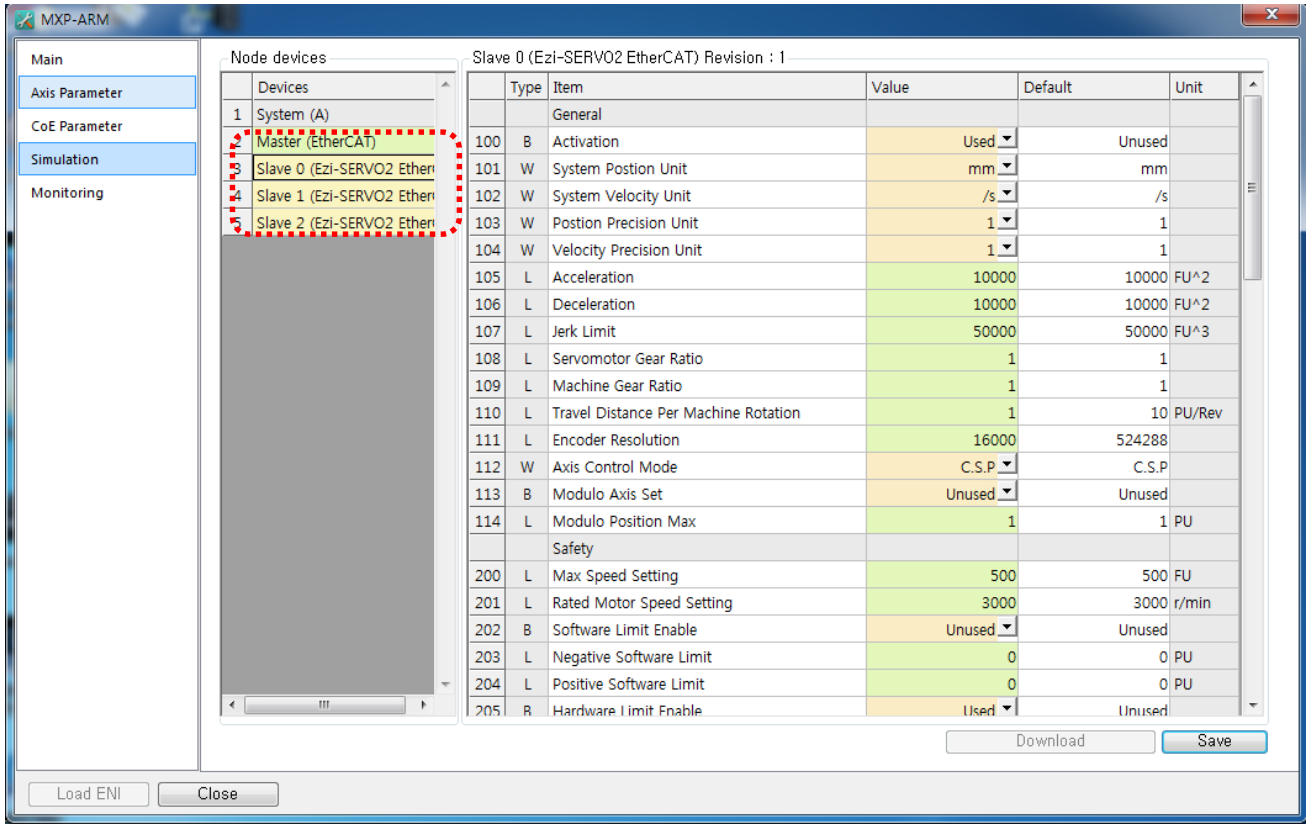
❑ Pre-built the ENI file for application based on XML information (Information checking)

Mechanics information such as Ballscrew & Motor Encoder Resolution can be checked



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2. COE Parameter

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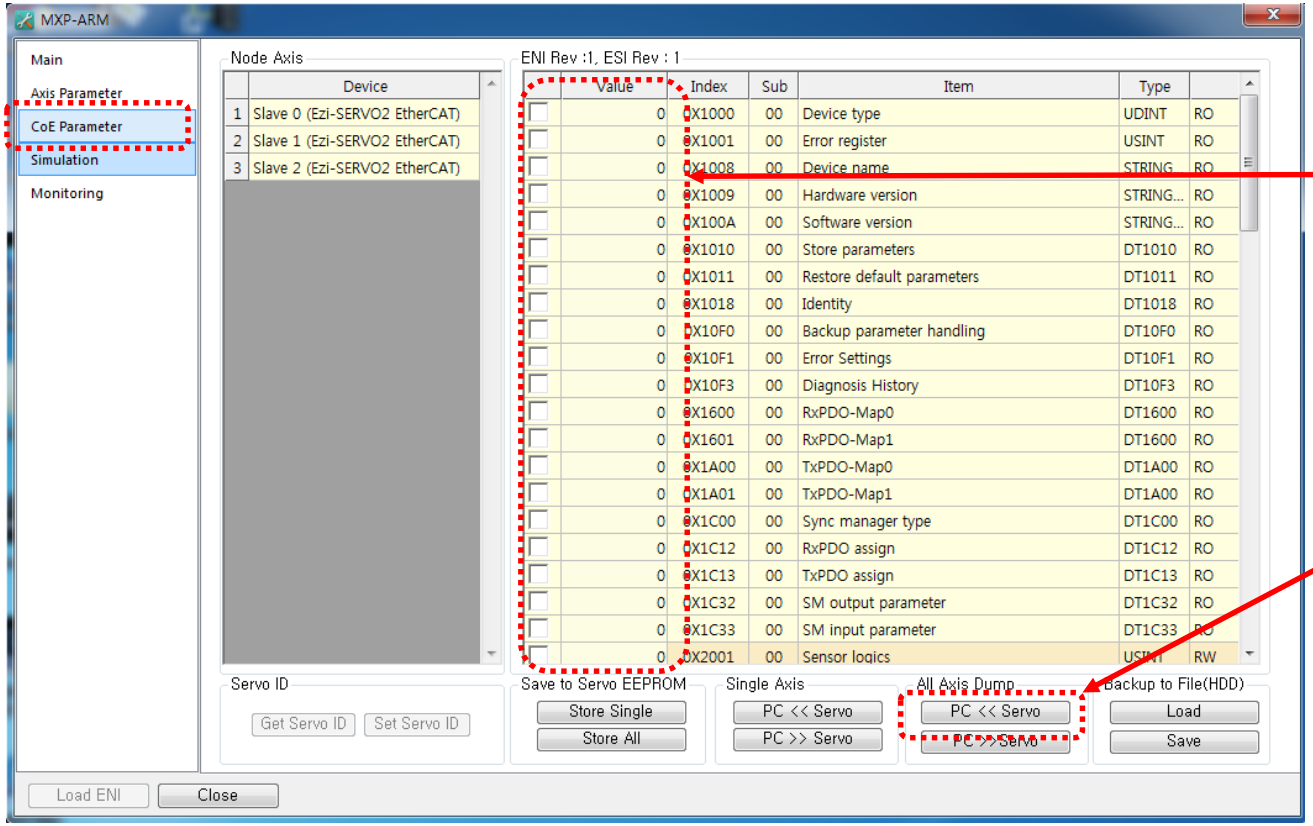
❑ FASTECH Ezi-SERVOII-EtherCAT Drive COE information checking



Value : status before reading the stored information of Drive

All Axis Dump : Transfer command to Master PC for stored information of Drive

2. COE Parameter

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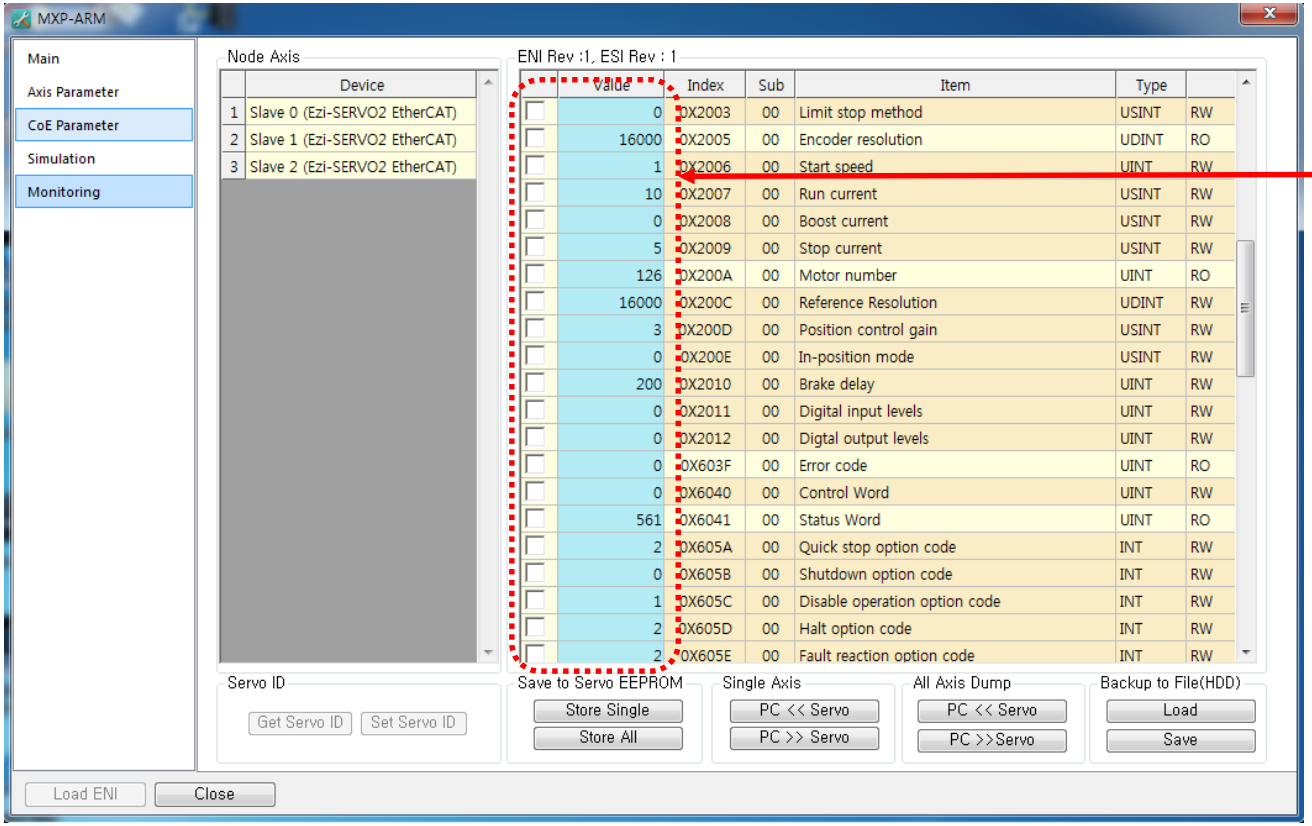
❑ Slave Drive information activating & checking



Value : Stored information of Drive activating complete

3. Simulation

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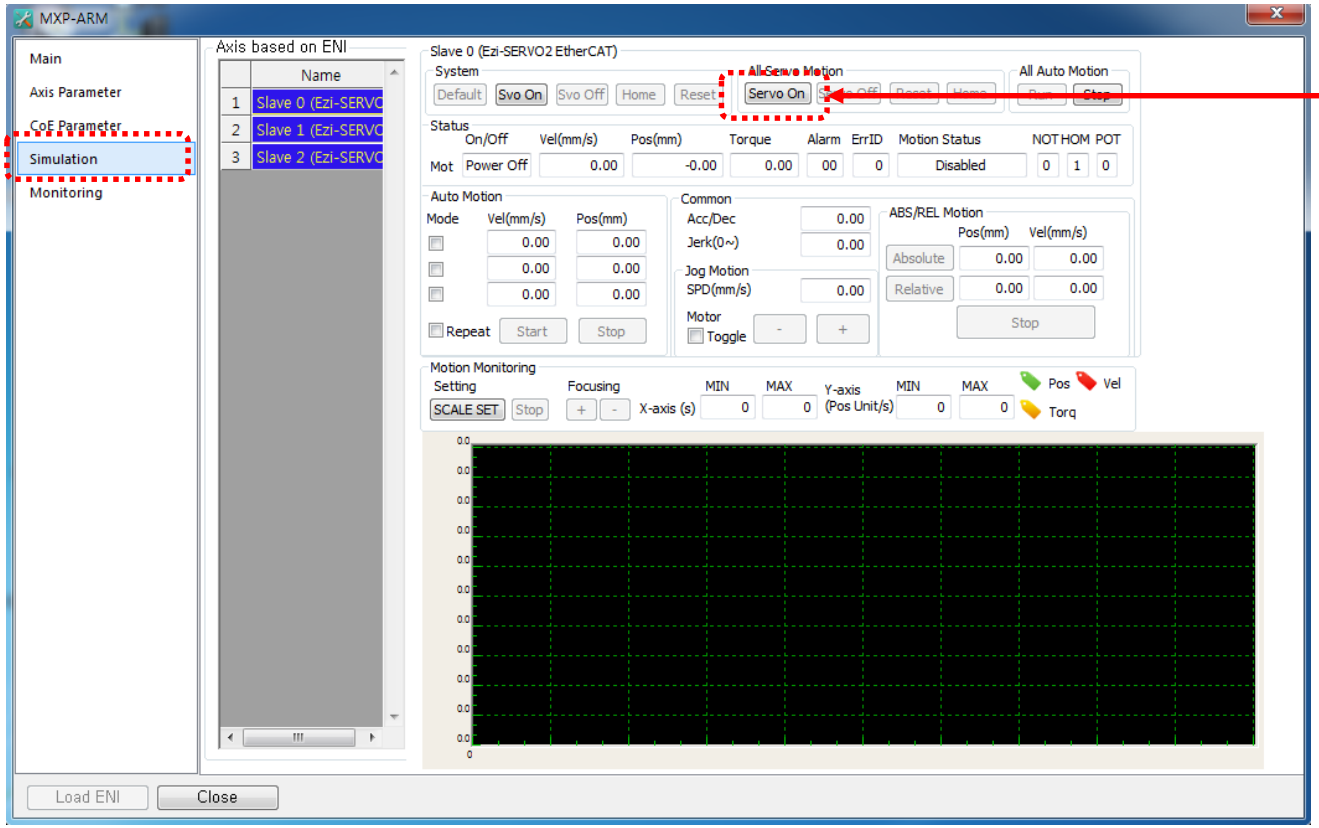
❑ Motion Test after communication activating

**** Executing the ALL Servo On**



Ezi-SERVOII-EtherCAT
Slave ALL SERVO ON

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3. Simulation [Command activating]

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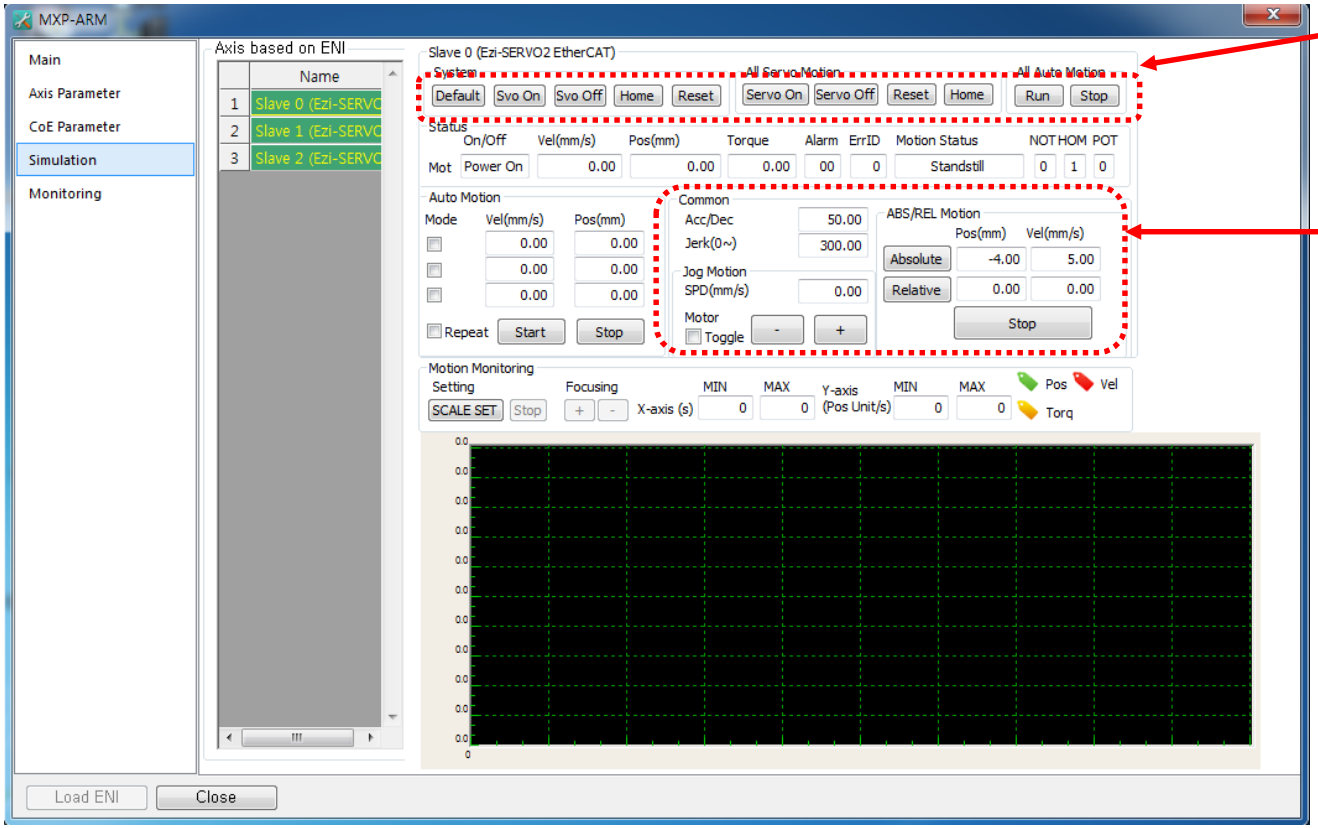
❑ SERVO ON & Homing (Click to Home command)

** Velocity input according to saved Screw information when ENI creation
Motion test : Common single axis transfer information input



Command activation
Execute the homing
Click to Home button

Common :
Acc/Dec input : 50%
Jerk value input :300
Vel value input : 5
(2.5revolution)
(Screw 2mm)
Absolute movement

3. Simulation [Command activating]

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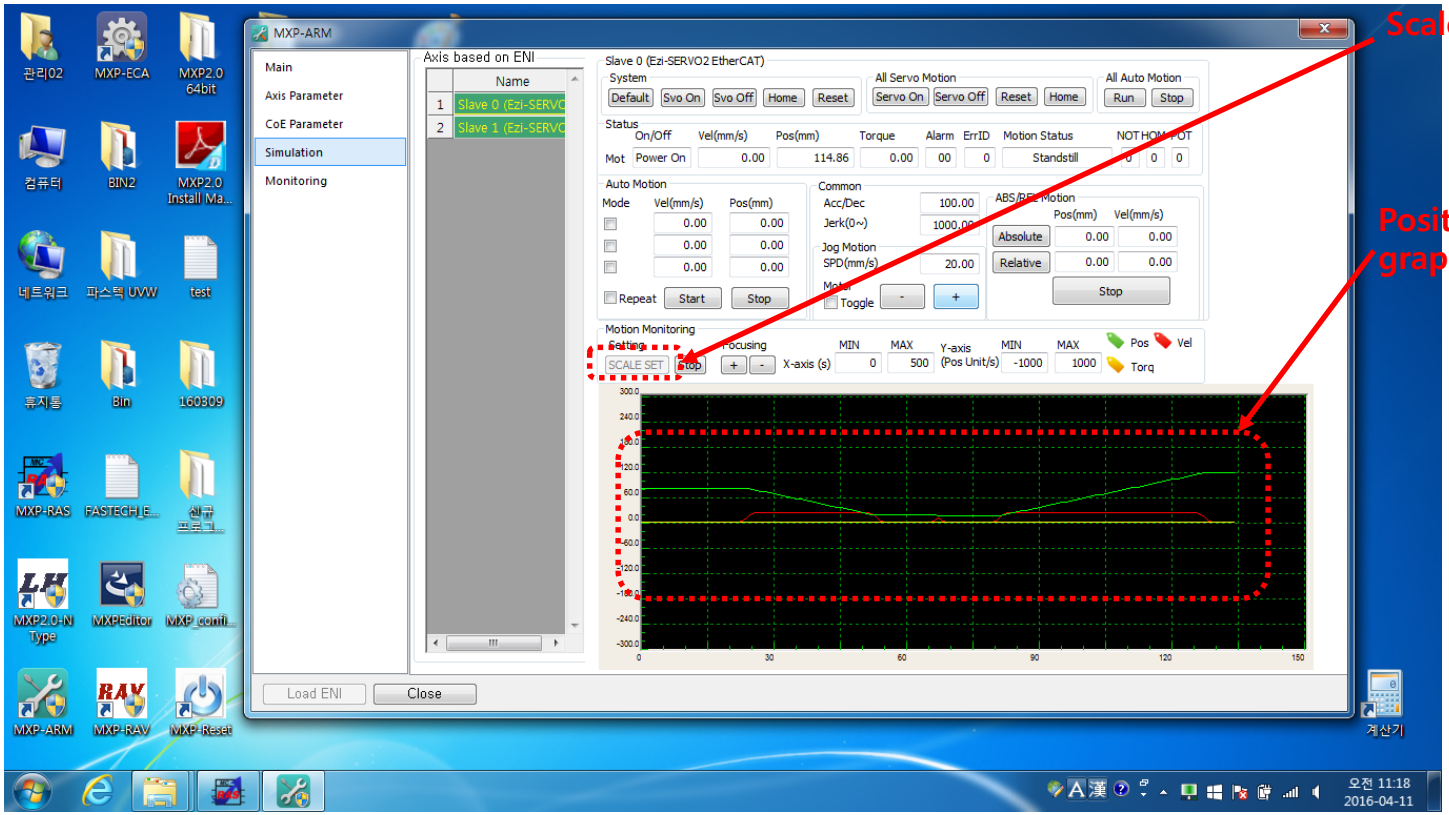
❑ Motion monitoring by Scale Setting

** Position and Velocity graphs can be checked according to the PDO Mapping



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3. Simulation [Multi-axes movement]

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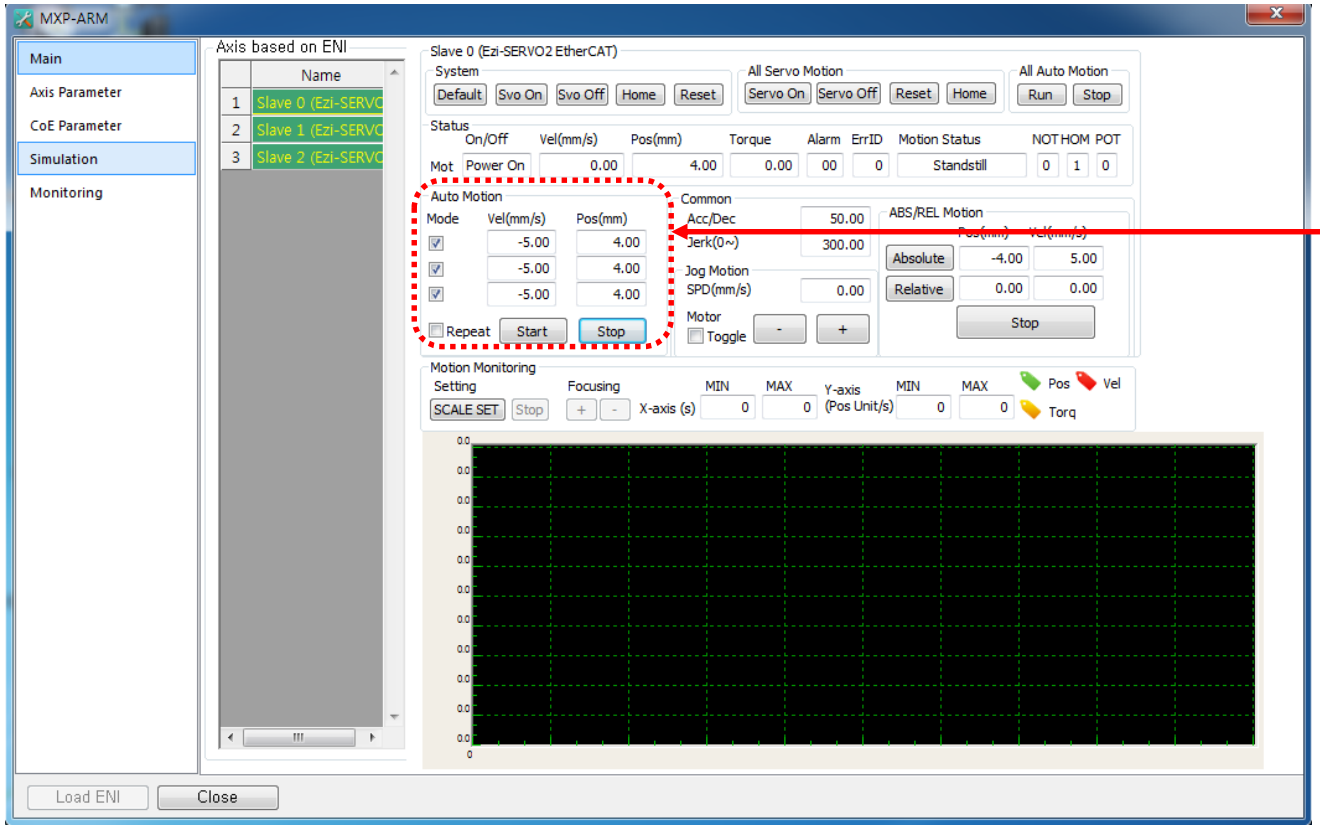
❑ Multi-axes CSP operation (Vel, Pos value input after checking each mode)

**** Repeat Test is possible by Auto Motion**



Auto Motion :
Malti-axes Repeat motion execution
(CSP setting)

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4. Monitoring

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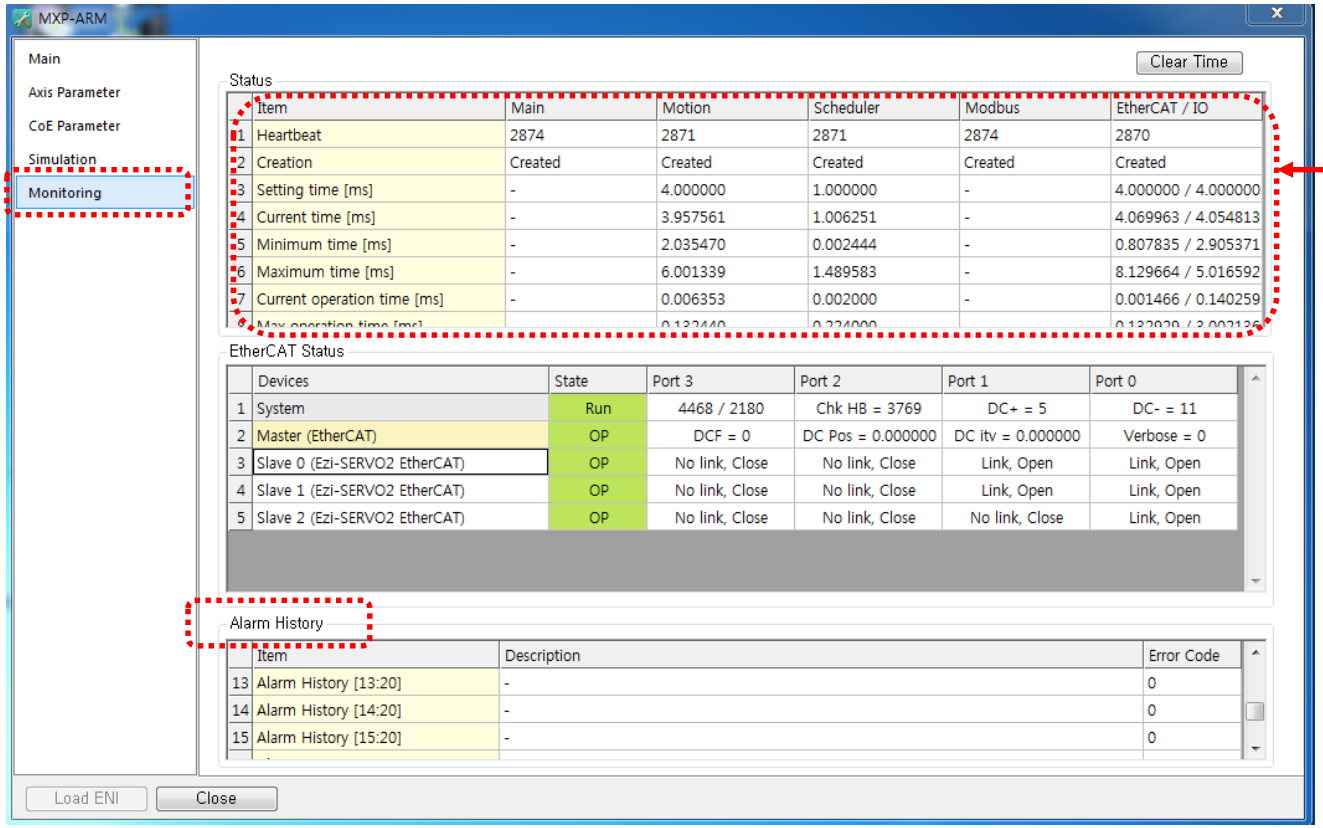
❑ Alarm history checking by Monitoring

** Auto save function when Alarm generating



Real-time motion & EtherCAT I / O information changes can be checked.

We are a pioneer changing the history of step motor !!

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