



MECHATROLINK News "MMA-FLASH" brings the latest MECHATROLINK information.

**Feature Article** *An interview with the MMA Korea*

## Growing Korean Open-Field Network Market, and MECHATROLINK that Quickly Responds to Market Trends

We deliver the latest news and information to MMA member companies and MECHATROLINK users in our feature articles.

For this issue, we asked Seonwoo Yun, responsible for the MMA Korea, to talk about current Korean markets and the activities of the MMA Korea.

### Q1. Could you tell us about current trends in the Korean open-field network market?

— The FPD (LCD, OLED) market, semi-conductor market, and secondary battery market in particular are expanding as the demands for smart phones, tablet PCs, EVs, and such are increasing. Since the miniaturization of industrial machines is needed to meet the needs in these markets, a wire-saving network to connect all devices is being featured.

Also, the market for green energy sources such as wind and solar, as well as the medical device and biotechnology market are expected to expand. To enter these new markets, every manufacturer is already moving ahead with research. "Network" will be the keyword when entering these markets.

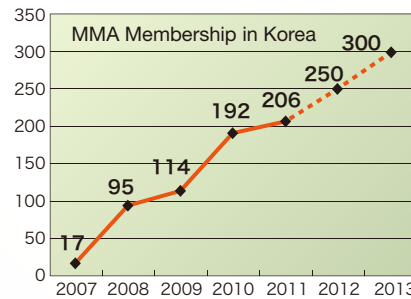
Various field network organizations are developing promotional activities under the assumption that a field network system will attract the interest of various markets.

### Demonstrating the Competitive Advantages of MECHATROLINK in Motion Control

### Q2. Could you tell us about your MECHATROLINK promotional activities focused on the trends in the Korean market?

— The MMA Korea (MMA-KR) carries out promotional activities to contribute to the marketing of MECHATROLINK, especially for motion control of manufacturing equipment for FPDs, semi-conductors, and secondary batteries.

The advantages of MECHATROLINK not only include "wire-saving" but also high-speed and high-accuracy transmission to that shortens machine takt time, and a wide selection of compliant devices that allow users to construct a system that is ideal for their manufacturing equipment..



Additionally, MECHATROLINK realizes the visualization of manufacturing system operations by monitoring the status of each connected device, which will lead to further improvement of maintainability.

The main activities of the MMA-KR are the organization of seminars, publicity activities mainly by participating in exhibitions, coordination with MMA member companies to promote the MECHATROLINK system to manufacturing equipment manufacturers, and encouragement and support for device manufacturers in developing MECHATROLINK compliant products.

As a result of our promotional activities, the number of MMA member companies in Korea increased to 206 by the end of FY 2011, and already 26 MECHATROLINK compliant products have been developed in Korea.

### Fusion with Motion Control Know-how of MMA Members Strengthens MECHATROLINK's Advantages

### Q3. Could tell us about the advantages that Korean MMA member companies that developed MECHATROLINK-compliant products, found in the use of MECHATROLINK?

— On the basis of high-speed motion control and multi-axis interpolation control, MECHATROLINK is able to control a variety of motions by using its various functions, such as switching the control mode between the options of position control, speed control, and torque control during operation. Furthermore, by adding the unique motion control knowledge of each master device manufacturer to MECHATROLINK performance, we have made it possible to support operations for a variety of equipment and a wide range of applications. This advantage is ranked so highly that MECHATROLINK is often selected for motion controllers.

For example, the Korean manufacturers AJINEXTEK CO., LTD.,

COMIZOA Co., Ltd. and Delta tau Korea developed MECHATROLINK compliant motion controllers. The fusion of the motion control knowledge of MMA members and MECHATROLINK functions is greatly contributes to the development of manufacturing equipment for FPD, semi-conductor, and secondary battery manufacturing lines, areas that require high level motion functionalities.

Fastech Co., Ltd. in Korea developed a stepping motor drive and displayed it in the MMA booth at AIMEX 2012. MECHATROLINK is greatly appreciated not only because of its high functionality and performance but also “easy to develop the compliant products” advantage to reduce development time.



MMA booth at AIMEX 2012

Besides all this, highly reliable communications are also appreciated. Communications are secured at occurrence of communication error, caused by noise interference or the like, by the retry function, which can re-send a message within the same transmission cycle.

**Q4. Could you give us a message for MMA members and MECHATROLINK users in Korea?**

—The MMA is working to make MECHATROLINK an international IEC standard to meet the world’s growing demand for open field networks. Furthermore, the MMA is planning to make MECHATROLINK compliant with Korean Industrial Standards (KS). The MMA-KR will devote all of its energy to promoting the use of MECHATROLINK and to supporting MMA members who choose to develop MECHATROLINK compliant products in Korea.



Seonwoo Yun,  
MMA Korea

## News & Topics

### Exhibitions

#### IAS CHINA 2012

The MMA will participate in IAS CHINA 2012, November 6 (Tues) – 10 (Fri), 2012 at Shanghai New International Expo Center. (MMA booth No. W1-D008)

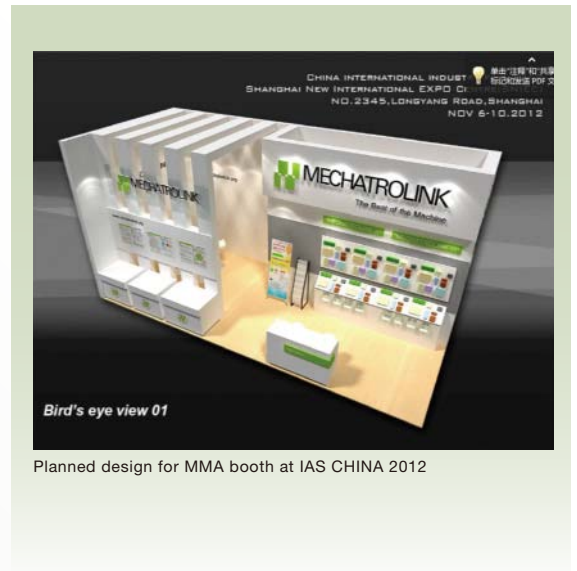
The MMA will demonstrate MECHATROLINK-II and -III compliant products developed by MMA member companies explaining in details the features of MECHATROLINK including the openness, high-reliability, high-functionality, and low-cost.

The MECHATROLINK compliant products developed by MMA member companies will also be displayed on tables so that you can get detailed information on each product.

We are looking forward to seeing many of you there.

**Event Information**

**Date: November 6 (Tues) – 10 (Fri) , 2012**  
**Place: Shanghai New International Expo Center,**  
**2345 Long Yang Road, Pudong Area, Shanghai, China**  
**Booth No.: W1-D008**



Planned design for MMA booth at IAS CHINA 2012

**MMA Participants:**

- ALGO SYSTEM CO., LTD.    • ANYWIRE CORPORATION    • Digital Electronics Corporation    • Googol Technology (Shenzhen) Ltd.
- KOYO ELECTRONICS INDUSTRIES CO., LTD.    • Micronet Co.    • M-SYSTEM CO., LTD.
- NIKKI DENSO Co., Ltd.    • ORIENTAL MOTOR CO., LTD.    • Sankyo Seisakusho Co.    • YASKAWA ELECTRIC CORPORATION
- YOKOGAWA ELECTRIC CORPORATION



## Report of TECHNNO-FRONTIER 2012

The MMA participated in the three-day exhibition TECHNO-FRONTIER 2012 held at Tokyo Big Sight, Japan, from July 11 (Wed) – 13 (Fri), 2012.

A panel that showed an entire system of MECHATROLINK network with MECHATROLINK-II and -III compliant products connected attracted many visitors just like it did at other exhibitions. Also, a presentation titled “MECHATROLINK Merits” was given at the MMA booth during the exhibition. Many visitors appreciated the easy-to-understand way of presentation. Besides the MMA booth, MECHATROLINK compliant products were displayed in individual booths of MMA member companies.

During the three-day exhibition, the MMA booth had more than 1200 visitors, including many from abroad, and 2 companies newly joined the MMA. Thanks to all of those who visited the MMA booth. The MMA will continue our promotional efforts to make MECHATROLINK widely accepted as a de-facto open network.



Successfully demonstrating MECHATROLINK network entire system



Presentation

## Report of Taipei International Automation Technology Exhibition 2012

The MMA participated in the Taipei International Automation Technology Exhibition held at the Nangang Exhibition Hall in the Taipei Trade Center (TWTC) from August 29 (Wed) to September 1 (Sat), 2012.

At the MMA booth, we demonstrated a wide variety of MECHATROLINK-II and -III compatible products. Taiwanese manufacturers also exhibited their MECHATROLINK compatible products at our booth. The demonstration and exhibits attracted many people. The number of visitors during the exhibition totaled more than 1200.

The MMA will continue promoting the use of MECHATROLINK in Taiwan.



MMA booth



Product from ART CONTROL SYSTEMS



Product from LNC Technology



Product from ADLINK

### MMA Participants:

- ADLINK Technology Inc.
- ALGO SYSTEM CO., LTD.
- ANYWIRE CORPORATION
- ART CONTROL SYSTEMS Inc.
- Digital Electronics Corporation
- KOYO ELECTRONICS INDUSTRIES CO., LTD.
- LNC Technology Co., Ltd.
- Micronet Co.
- M-SYSTEM CO., LTD.
- NIKKI DENSO Co., Ltd.
- ORIENTAL MOTOR CO., LTD.
- Sankyo Seisakusho Co.
- YASKAWA ELECTRIC CORPORATION
- YOKOGAWA ELECTRIC CORPORATION

## Report of MECHATROLINK Seminar 2012 in Beijing

The MMA organized a MECHATROLINK seminar at Xinhai Jinjiang Hotel in Beijing, China, on September 20 (Thurs), 2012.

The seminar started with an introduction of MECHATROLINK by the MMA-SH (MMA China Shanghai office), 8 MMA member companies then introduced their MECHATROLINK compliant products. In the seminar room, the MECHATROLINK compliant products of the MMA member companies were displayed, and many participants gathered in front of the displayed products to ask the manufacturers for detailed information on each product.

The seminar room was almost full with about 80 participants. Through this seminar, 30 companies newly joined the MMA.

The MMA-SH will do its best to make MECHATROLINK widely recognized as a de-facto open networking standard and actively promote the use of MECHATROLINK in China.



Display of products



Seminar

## New MECHATROLINK Products

### M-System Co., Ltd. "Multi-channel, Mixed Signal I/O"

#### Features

- Network module model R3-NML3 is designed for MECHATROLINK-III.
- Wide selection of I/O modules including DC, AC, temperature, strain gauge, pulse trains, AC power
- 4 isolated to 16 non-isolated analog inputs per module
- Max. 64 discrete I/O per module
- Dual redundant communication networks and power supplies



R3 Series

Inquiries

#### M-System Co., Ltd.

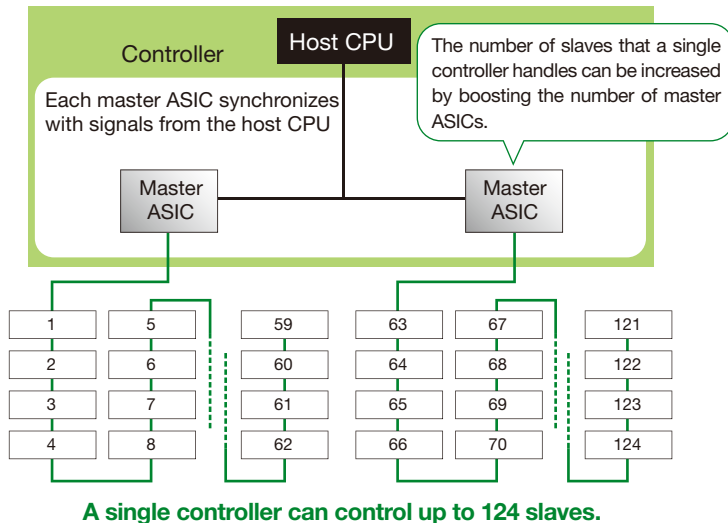
5-2-55, Minamitsumori, Nishinari-ku, Osaka 557-0063 Japan  
 Phone: +81-6-6659-8201 Fax: +81-6-6659-8510  
 URL: <http://www.m-system.co.jp> E-mail: [info@m-system.co.jp](mailto:info@m-system.co.jp)

#### Column

### You believe that MECHATROLINK-III can control only 62 axes, don't you?

The MECHATROLINK-III master ASIC is designed to synchronize with signals from the host CPU. Thereby, the use of multiple master ASICs makes it possible for a single controller to control a number of slaves bigger than the MECHATROLINK-III communication specifications allows.

#### When using two master ASICs,

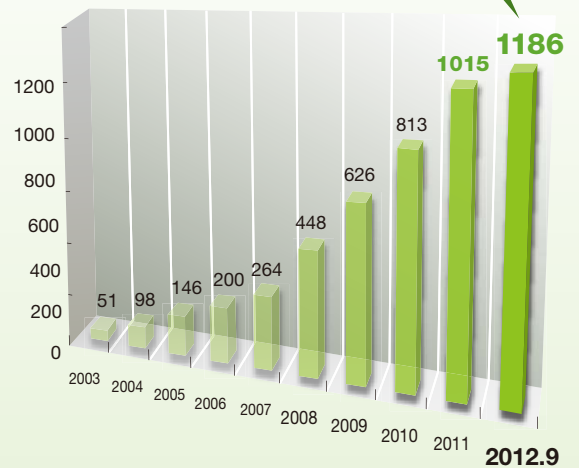


#### MMA Membership as of Sept. 30, 2012

171 companies were newly joined in the MMA in the first half of FY2012. The MMA will participate in various exhibitions and organize seminars to further promote the use of MECHATROLINK.

Japan, Taiwan, India : 473  
 China : 358  
 Korea : 214  
 Europe : 72  
 North America : 69

**1186 members**



#### Editor's Comment

The summer heat has gone away and autumn colors are approaching their peak. The beautiful Mt. Fuji sunset, as seen from my office, helps restore my energy. The MECHATROLINK Fair will be held this month, and I'm already excited about seeing many MMA members there. We will do our best to wrap up 2012 successfully and look ahead to the coming years. Written by Hiranuma.

#### Inquiries

For questions about joining MECHATROLINK Members Association and other inquiries, please contact the MMA.

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480 Kamifujisawa, Iruma, Saitama, 358-8555 Japan  
 Tel: +81-4-2962-7920 Fax: +81-4-2962-5913  
 e-mail: [mma@mechatrolink.org](mailto:mma@mechatrolink.org) URL: <http://www.mechatrolink.org/>