



# CC-Link News

## EUROPEAN EDITION

### In this issue:



#### SPS Preview

Once again we will be exhibiting at SPS/IPC/Drives 2011 in Hall 6 Stand 6-136.

The perfect environment to find out how CC-Link supports your industry and how it can open doors into China for your business.



#### Fresh look at CLPA Web Site

Visit our fresh new web site [www.the-non-stop-open-network.com](http://www.the-non-stop-open-network.com) and find out all about CC-Link products, success stories and how to develop a CC-Link compatible device.



#### New 'Productivity' white paper

Check out this new white paper which features how non-stop networks can ensure continuous, efficient production.



#### New Polish Training Centre

The biggest automation and robotics training centre in Poland has been opened in Łódź. It will train over 10,000 students and teachers a year as the country races to modernise its manufacturing and production infrastructure.



#### G2C message seen at the EMS Summit e-F@ctory village

CLPA participated at the EMS European Manufacturing Strategies Summit 2011 which was held on the 17-19th October at the Swissôtel, Düsseldorf, Germany.

## Your Gateway to China

The CC-Link Partner Association (CLPA) has put together a comprehensive package of engineering and marketing services to help European device makers increase sales in the fast growing Chinese market.

The G2C program is primarily based around helping device makers to develop CC-Link compatible products. CC-Link is a de-facto standard in many Asian industries and an essential door opener for any manufacturer looking to sell into the Chinese market.

The program divides into two main parts. Firstly, the CLPA provides assistance to develop a product. Secondly, it then provides a wide range of promotional opportunities in the Chinese market to help market it. This is all in return for annual membership of the CLPA.

G2C already has the backing of key European CLPA partners, including: 3M, ABB Robots, Balluff, Bihl + Wiedemann, Cognex, Datalogic, Hilscher, IDEC, HMS, Mitsubishi Electric, Pepperl + Fuchs, Pro-face, Wago and Weidmüller (Industrial Ethernet products).

### G2C benefits package

The CC-Link brand is heavily promoted and recognised in major manufacturing environments in China. With native language capability, over 20 local offices and staff providing timely technical support, the CC-Link team will help you every step of the way.

### Development support

We will supply a comprehensive package of support to help develop a CC-Link compatible product. CLPA membership is required in order to develop a compatible product. However, all CC-Link specifications (protocol, implementation, etc.) can be provided free of charge if you register as a CLPA member.

Free kits of development devices are available as is cable from partner 3M to help with device testing. Further, development assistance from CLPA's local technical staff is also provided free of charge. Overall, with our support, fast implementation can be achieved without any protocol knowledge.

CLPA partners Hilscher and HMS are also offering benefits to companies who opt to use netX or Anybus technology to implement CC-Link.

Also Weidmüller provides a 10 gigabit field attachable RJ45 connector starter kit for the CC-Link IE-Field infrastructure.



All you need to do is determine the type of product to be developed, based on the amount of data to be handled and functionality required.

### Marketing support

By partnering with CC-Link you will have access to substantial marketing resources. A typical program of activity may include advertising in leading Chinese industry journals, promoting your CC-Link compatible products direct via online channels, coverage in newsletters, road shows, webinars and more.

These benefits are already part of CLPA's extensive marketing activities in China, and joining the G2C programme allows European companies to leverage them to further their success in this market.

### Ensuring compatibility

A key requirement for adopting any open network technology is knowing that a device will operate correctly on the network. CC-Link addresses this by encouraging thorough conformance testing. On passing this set of tests, customers can be sure that the device will be freely interoperable with the rest of a CC-Link network.

To find out more or get involved, contact us at [g2c@clpa-europe.com](mailto:g2c@clpa-europe.com), or visit our website [cc-link-g2c.com](http://cc-link-g2c.com)



## CC-Link celebrates 10th anniversary in China

The power of CC-Link to open business opportunities in China was underlined at the event held recently to mark its tenth birthday in the country. Over 150 leading industrialists met in Shanghai to celebrate their successes in using CC-Link throughout China's burgeoning manufacturing sector.

CLPA-China, the CC-Link Partners Association's branch in China, organised the anniversary event near its headquarters in Shanghai. With all the Chinese branch offices participating, the gathering brought together guests from all over China and around the world.

An afternoon seminar hosted presentations from large CC-Link users such as Ford/Mazda and LG, as well as key partners such as Mitsubishi and Balluff, plus large Chinese OEMs. The event was completed with a boat cruise reception, giving all participants a tremendous view of the spectacular Shanghai skyline.

CC-Link originated in Japan over a decade ago and quickly became the de-facto standard for open networking throughout Asia. It has since spread to the Americas and Europe.

The 10th Anniversary event also helped highlight the CLPA's Gateway to China (G2C) programme. This was kicked off in Europe in October 2011 and is intended to promote the fact that European companies will enhance their chances of success if they are fully conversant with CC-Link, rather than struggling to introduce an alien protocol. This is particularly true in certain industries such as automotive and flat panel displays, where CC-Link has become a de-facto standard.

The G2C programme divides into two types of benefits; development and marketing. The programme aims to help European device makers get CC-Link products developed, and then to assist them with promotion in the Chinese market.



John Browett, Acting General Manager of CLPA Europe observes: "Everyone knows that China is probably the hottest market for automation right now. What is less well known is that CC-Link is a key enabling technology for success in that market. We want all European device makers to know they can increase their Chinese business by building in CC-Link. The G2C programme will promote this opportunity and back it up with tangible benefits."

## CLPA makes impact at recent EMS Summit



The 7th Annual EMS Summit was recently held at the Swissôtel in Düsseldorf.

Mitsubishi Electric and the e-F@ctory Alliance were official event sponsors. Within the main event there was an e-F@ctory 'village' where delegates

to the EMS Summit were able to see leading edge solutions to help drive up productivity and increase plant visibility across the full spread of industry sectors.

The e-F@ctory Alliance covers over 20 partner companies who are leading the market within their field, from areas including communications, electrical power solutions, enclosures and fittings, enterprise connection, data connectivity, manufacturing process, programming, SCADA and vision. The Alliance members bring far-reaching expertise in industry sectors such as automation, automotive, food and beverage, energy, IT, process and water.

Therefore, it represented the perfect platform for CLPA to promote the strengths of CC-Link, as the EMS Summit is designed to highlight best practices so that attending companies can see how to improve their operational excellence – highlighting technologies and strategies to improve their business performance and drive down their costs. The Summit's aims were also to equip delegates with the latest information on how economic trends will impact on European manufacturing and to support them to develop strategies for improving their businesses by creating a continuous improvement culture.

This year's Summit also covered key issues, such as how to implement best practice and lean management systems across worldwide operations and provide an insight into how to implement green practices without reducing profits.

The event proved to be very successful for CLPA with many new contacts made, of which there was considerable interest in CC-Link's strengths in China – as reflected in the current G2C campaign.



## New look website!

Visit our fresh new web site [www.the-non-stop-open-network.com](http://www.the-non-stop-open-network.com) and find out all about CC-Link products, success stories and how to develop a CC-Link compatible device.

There is also a dedicated section on the G2C campaign which can be accessed from the home page or directly via [cc-link-g2c.com](http://cc-link-g2c.com).

We look forward to hearing your comments about the new look. Contact us at [partners@clpa-europe.com](mailto:partners@clpa-europe.com).



## Product spotlight:

### Balluff CC-Link IP67 I/O Modules



Important for many established users of CC-Link controllers, is the use of 2-wire polarized sensors. These same sensor inputs can be used with the Balluff blocks as well as 3-wire PNP or NPN inputs.

A backlit display quickly shows the station address, the communication baud rate, and the hardware/software versions. Pushbuttons allow the setting of the station address and the baud rate right at the block. The display can be locked out via the controller.

In most established CC-Link networks, I/O is run into an IP20 enclosure, and then sensors are terminated in the box with intensive labour and space requirements. Process data is well protected with these IP67 blocks and the space and labor requirements are dramatically reduced.

As well as I/O blocks, Balluff offers CC-Link to I/O Link gateways in the same rugged IP67 format. As the first standardized, uniform, universally applicable interface in control technology, I/O-Link transmits all sensor and actuator signals to the controller. Likewise, I/O-Link passes control data down to the lowest sensor level. All of this makes automation even more powerful than ever before.

### An easy way to connect Modbus TCP-enabled devices to CC-Link



With the new Anybus X-gateway for Modbus TCP, you can easily connect Modbus TCP-enabled devices to CC-Link

The X-gateway works as a translator between the two protocols and is quickly configured through a web interface without the need for any programming.

Acting as a client (master) on the Modbus TCP network and a slave/adaptor on the CC-Link network, it is designed to provide a very fast transfer of I/O data, typically with a delay of no more than 5ms.

As all Anybus gateways, the X-gateway for Modbus TCP to CC-Link solves important connectivity issues for system integrators working with industrial network design. These issues include connecting two otherwise incompatible networks in a factory, migrating to a newer network standard or expanding the length of an existing network.

New design makes system integration easier

The new gateway design offers many benefits for the user such as easier cable connection, backplane stacking possibilities and a wall-mount option for harsh industrial environments. The gateways are designed to operate in rugged industrial conditions and are certified by CE, RoHS, UL, Haz.Loc, ATEX, with Marine certification pending (IACS E10DNV 2.4).

### WAGO-I/O-SYSTEM 750 with CC-Link connection



The proven WAGO-I/O-SYSTEM 750 can easily be integrated into a CC-Link network via CC-Link Fieldbus Coupler 750-310. The system is characterized by its modular and space-saving design.

Years of experience and customer requirements resulted in a variety of different functional modules which enable the user to respond flexibly to different applications.

The modular, rail-mounted module design allows for easy, tool-free handling and straightforward modifications, such as additions. Each node in the WAGO-I/O-SYSTEM can be configured to meet each channel's requirements, and various potentials and signal forms are available (granularity of 1 to 16 channels).

## Poland prepares its high tech future with CC-Link



The biggest automation and robotics training centre in Poland has just been opened in Łódź. It will train over 10,000 students and teachers a year as the country races to modernise its manufacturing and production infrastructure.

Users of the centre will include practicing engineers from industry and students from the local university and Łódź Teachers Training and Education Centre. The centre is fully equipped with the latest automation products and systems from a number of internationally recognised suppliers, including Mitsubishi Electric and Festo. Much of the communications within the systems is based on CC-Link, the open protocol that allows equipment from many different manufacturers to be freely interconnected within a system.

"2010 saw CC-Link celebrate its 10th Anniversary as an open network. This means it has become well established in Poland and Central Europe, so it was a natural choice for the centre," says John Browett, Acting General Manager of the CC-Link Partner Association (CLPA) Europe.

"When Poland started the post-Soviet modernisation of its manufacturing industries, it realised that exports to the Far East were likely to become its life blood. The take up of CC-Link was therefore encouraged because it is the dominant open comms protocol throughout Asia and therefore a passport to export success."

Łódź is in the middle of Poland, so is strategically located to offer its facilities and services to the whole country. Demographically, Poland's population is young, and the resources and infrastructure put it in a strong position to become a major manufacturing and technology centre serving the EU, Central and Eastern Europe. Culturally and economically it is natural for Poland to look further east for its main export markets.

CC-Link was initially developed in Japan and quickly spread throughout Asia before becoming established in Europe and America. There are over 240 companies making compatible products, and almost 9 million CC-Link devices installed globally, setting a global standard for open networks.

"At CLPA, our brand is the "Non-Stop Open Network™". The key technical benefits of CC-Link translate directly to business benefits by maintaining high productivity even in the face of adverse operating conditions. Knowing devices will operate together is also an important productivity benefit for system design and maintenance," explains Browett. "We assure this by means of conformance testing, available in all key regions of the world via our global network of conformance test centres.

"We are now seeing open networks emerge as the default choice of control engineers in every industry. In the EU, US and Japan they are replacing older systems where every field device is individually wired back to its controller. In emerging economies, the movement is often straight from manual labour or mechanical systems to CC-Link, missing out the old stage of cable trays and looms with enough wiring to keep an army of technicians employed."

"Young engineers – that is anybody less than 30 – were largely trained on open technology, so think anything else is painfully old fashioned. It would be like going back to living without mobile phones, laptops and the Internet!"

"There is no doubt that Poland and its neighbours are set to become major forces in world manufacturing. Their choice of CC-Link open networks means they will have state-of-the-art production capabilities that can be constantly updated as industry and technology develops."

## CLPA European members

3M Deutschland  
ABB AS Robotics  
ABB OY  
Advanced Electrical Ltd  
AGH University of Science and Technology  
Akhmaton Ltd  
APS Ltd  
APV Products  
ASKON  
Atlas Copco Tools AB  
ATYS-co  
AutoCont Control Systems  
Automatec Sp. z o.o.  
Automation Research Centre, University of Limerick  
Balluff GmbH  
Barwit Control Systems (MH) Ltd  
Beckhoff Automation GmbH  
Beijer Electronics AB  
Belcom

Belden  
Betech 100pt Ltd  
Bihl+Wiedemann GmbH  
BPX Electro Mechanical Ltd  
CBI Electric  
CNC CBKO SP. z o.o.  
Cognex  
Contrinex AG  
Control Techniques Drives Ltd  
Cougar Automation Ltd  
CSC Automation Ltd  
Datalogic S.p.A.  
Datsensor SPA  
DDC Ltd  
Deuschmann Automation GmbH & Co KG  
Eaton Electric Ltd  
Econotec Industrie Automation AG  
Elektronik-Systeme LAUER GmbH  
Engineering-Service Ltd

Festo AG & Co. KG  
Fuji Electric FA Europe GmbH  
Gateweb GmbH  
Geotek Elektrik Elektronik Otomasyon Ltd Sti  
GEVA Elektronik Handelsgesellschaft mbH  
Global Associates  
GTS Asansör San. ve Tic. Ltd. Şti. Mr  
GTS Genel Teknik Sistemler Ltd. Şti.  
Hengstler GmbH  
Hilscher GmbH  
HMS Industrial Networks AB  
Hottinger Baldwin Messtechnik GmbH  
Idec Electronics  
Igs GmbH  
Industrial Solutions Ltd  
INEA d.o.o.  
Institute of Automatic Control & Robotics, Warsaw  
University  
K A Schmersal GmbH

Kiev Polytechnic Institute  
Kisco Deutschland GmbH  
Kitron AS  
Koning / Hartman  
Krakow University of Technology  
KUNBUS GmbH  
L C Automation Ltd  
Lemvigh Muller Industriel & Aytomation  
Leoni Special Cables Friesoythe GmbH & Co.KG  
Leuze Electronic GmbH + Co KG  
Lütze Ltd  
Manuel Jehkul  
Medicion Y Control, S.A.  
Meltrade Automatika Kft  
MESCO Engineering GmbH  
Mikrol  
Mitsubishi Electric Europe  
MPL Technma Sp. z o.o.  
MPL Technology Sp z o.o.

National University of Food Technology  
Newton Tesla (Electronic Drives) Ltd  
Northern Design (Electronics) Ltd  
Ogrody Podlaskie Kowalewscy sp.j.  
Oliver IGD Ltd  
OptionExist Limited  
Oriental Motor (Europe) GmbH  
Paktronic Engineering Co Ltd  
Panasonic Electric Works Europe AG  
Parker SSD Drives  
Patelite Corporation  
Pepperl & Fuchs GmbH  
Pilz GmbH & Co.  
Politechnika Czestochowska ITMIAP  
Pro-face Europe BV  
Pronar Sp. z o.o.  
Prosoft Technology  
Rudolf Kleinscher Schaltungsbaubau  
Saltronics Limited

Schneider Electric SA  
S C Johnson  
Seacane Ltd  
Severn Controls Ltd  
SICK AG  
Sirius Trading & Services SRL  
Slavutich PPA  
SMC European Technical Centre  
Softing AG  
Sotronic Ps. Z.o.o.  
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Wildgoose & Davies  
Woodhead Software & Electronics sasu (Molex)  
Zaklad Elektroniki i Informatyki Chip  
ZAO "Avtomatika-Sever"