

# "CC-Link", An Open Industrial Network from Japan That is Spreading Widely in Rapidly Automating China

**"CC-Link", the industrial open network that was born in Japan and is now spreading all over the world. The CC-Link Partner Association (CLPA) is now putting great effort into developing CC-Link in China with the slogan "Gateway to China". The entire Chinese manufacturing industry, not only the advanced companies, is now trying to adopt advanced automation using industrial networks. CC-Link has captured about 40% of the Asian market. Further development of CC-link in China will increase its presence.**

CLPA, the association to promote CC-Link, was established in November 2000. CLPA has promoted CC-Link for about 11 years by aggressively supporting the companies involved with developing the CC-Link-compatible devices and system building. As of May



Global Director of CC-Link Partner Association  
Ms. Naomi Nakamura

2012, 1230 products are compatible with CC-Link and 1680 partner companies support the activity of CLPA. Compared to 134 companies at its foundation, the number has increased about 10 times. Now companies all over the world support CC-Link, and 60% of the partner companies are foreign companies. Specifically, companies in Europe, North America, China, South Korea, and Taiwan have joined as partners. "Especially in Asia, CC-Link has been adopted by companies in South Korea and Taiwan and commands about 40% of the industrial open-network market, which is the highest market share of the industry. The main users are big companies which manufacture liquid crystal panels, glass, automobiles, and tires." (said Ms. Naomi Nakamura, the global director of CLPA)

## Active Support for Promotion in China

To support partner companies and users, CLPA has acted globally, with offices in South Korea, Taiwan, United States, Germany, China, and Singapore. CLPA is especially focused on promotion in China. "In China, a quality change in manufacturing is now beginning. Accompanied by this trend, the entire manufacturing industry is focusing on the automation technology in factories. We will expand the share of CC-Link in China to 20% or more in a few years, thanks to this opportunity." (said Mr. Yoshiaki Nagashima, CLPA

Global Marketing Manager) Manufacturing in China used to mean simply assembling goods. However, more and more companies in China handle components or materials, not only assembly, which means that the spread of manufacturing is getting wider. On the other hand, this expansion on the market requires the manufacturing companies to improve their productivity and especially the quality of their products. To deal with this movement, now more and more companies have an interest in advanced automation technology using industrial open networks. In fact, FAW Car Co., Ltd. (hereafter: FAW Car), the leading Chinese automobile manufacturer has started trying to automate its factories using CC-Link first. (See the column on the next page.)

## Strengthened Support for Product Suppliers

The slogan CLPA chose for its CC-Link promotion activity in China is "Gateway to China". "For the promotion of CC-Link, more variety of CC-Link devices must be provided and services must be improved in China. To do so, we will become a gateway for companies handling CC-Link-related business to enter the Chinese market. This is the concept of our slogan." (said Ms. Nakamura) CLPA offers two ways to support companies with CC-Link: market development and product development. For example, as support for market



Global Marketing Manager of CC-Link Partner Association  
Mr. Yoshiaki Nagashima

## "The keys to evolution are in the hands of automation technology" -Interview with the top executive of FAW Car-

China FAW (First Automobile Works) Corp. (hereafter: China FAW) is the biggest automobile manufacturer in China. FAW Car Co., Ltd. (hereafter: FAW Car), an affiliated company of China FAW, has been aggressively adopting an automated production system to achieve both high quality and high productivity. The company, employing what they claim is the world's highest level automated production system, has demonstrated a strong commitment to CC-Link. According to Mr. Wang Yuchun, one of the executives who is in charge of the production system, FAW Car has been trying to establish a production system that can be flexibly adopted for a complex production



CC-Link-compatible devices operating in the 2nd factory of FAW Car

plan while increasing its productivity and pursuing high quality. "Recently, the demand for automobiles in the Chinese market has kept increasing, and consumers' needs are getting more and more varied. Satisfying both high productivity and high quality is a great challenge in factories. To meet this challenge, automation technology, especially industrial open networks plays a significant role." (said Mr. Wang)

The factories of FAW Car employ several industrial networks of which CC-Link is the most widely used. "We first brought in CC-Link in 2004. In all of the 1st, 2nd, and Hongqi-dedicated factories, CC-Link is playing an active role. We will adopt CC-Link in the new 3rd factory too." (said Mr. Wang)

Mr. Wang also says that the factories of FAW Car face many issues for automation, such as linkages between production lines and between machines. To solve those



Mr. Wang Yuchun, Vice President of FAW Car (left)

issues, FAW Car will widely adopt effective automation technologies such as CC-Link. "We will need to integrate the information system and the production system to streamline the production system further. We hope vendors will suggest solutions to establish such advanced systems." (said Mr. Wang)

development, CLPA takes a main role for the promotional activities of CC-Link-compatible products. "We place advertisements introducing CC-Link-compatible products to key industries in China and hold technical seminars to deliver information to users directly. We will also provide free media, like webinars." (said Mr. Nagashima) CLPA will participate in the "FPD International CHINA 2012/Beijing Summit", the big event for the flat panel display industry held at the Olympic Green Convention Center in September with its partner companies. "The flat panel display field is one of the most automated industries. There, we will promote the advantages of CC-Link to key persons in the industry." (said Mr. Nagashima) As support for product development,

CLPA distributes a development support kit containing the necessary parts for CC-Link device development. This kit enables a company to develop a CC-Link-compatible product easily. In addition, as another service, CLPA bears the cost for the conformance test of CC-Link. "In the near future, semiconductor manufacturers around the world will launch various chips, like ASSP, which are compatible with CC-Link or CC-Link IE. This will make CC-Link-compatible product development even easier. We hope the device vendors will develop CC-Link-compatible products more easily by using the support from CLPA under the "Gateway to China" programme and will develop their business further in the significantly growing Chinese market." (said Mr. Nagashima)

CC-Link is supported by many of companies not only in Japan, but also in Asia. The standard itself has continued to develop. For example, "CC-Link IE" has been added to the family. This is the Ethernet-based specification which connects the information and production systems seamlessly. CC-Link will continue to attract further attention as a key technology providing effective solutions for enterprises which are seeking a way to reinforce their production system for further growth.

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