Subject: New companion specification integrates CLPA's “CSP+ for Machine” into OPC UA technology

Keywords: CC-Link Partner Association (CLPA), OPC Foundation, OPC UA companion specification, CSP+ for Machine, Industry 4.0, Control & Communication System Profile, CC-Link IE, CC-Link, open gigabit Ethernet, CC-Link IE Field Basic, process equipment, IIoT

Byline: John Wozniak, P.E., CLPA-Americas Manager  
Vernon Hills, IL United States; August 8, 2018

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At SPS/IPC/Drives Italia 2018, the CC-Link Partner Association (CLPA) announced the completion of a companion specification with the OPC Foundation (OPCF) to simplify the tasks of information transfer between plant systems and to provide high connectivity and interoperability. This is based on the CLPA's “CSP+ for Machine” technology.
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As described by the OPCF, OPC UA (Unified Architecture) is a platform-independent, service-oriented architecture that integrates the functionalities of the individual OPC Classic specifications into one extensible framework. It delivers the necessary infrastructure for interoperability and for moving data and information from the embedded world to the cloud. It also addresses cyber security with technology that has been assessed by the German Federal Office for Information Security (BSI). Hence OPC UA is a key component in the drive towards Industry 4.0.

John Browett, CLPA-Europe General Manager, added: “With Industry 4.0 becoming a key topic, this companion specification will increase process and system transparency for end users, enabling more efficient operations, better product quality and higher productivity.”

CLPA’s activity with the OPCF aims to expand its existing CSP+ (Control & Communication System Profile) technology from just describing individual devices and to apply it to complete machines and production lines. This is the key concept behind CSP+ for Machine.

CSP+ has long been providing easy drag and drop network configuration using CSP+ files from CLPA partner vendors, by allowing the creation of device libraries. However, the new CSP+ for Machine extension of CSP+ provides easy network configuration and maintenance by offering profiles that describe whole machines instead of just devices on a CC-Link IE network.

Browett explained: “The CSP+ concept has allowed individual devices on a network to be defined by a profile and, therefore made it easier to configure and maintain networks. By mapping the OPC UA model to CSP+ for Machine, we can take a step further and offer the ability to treat an entire machine like a device. Thus, we simplify configuration and maintenance on a much higher level.”

Via XML, CSP+ for Machine provides information concerning machine specifications, application software, data to be acquired and how, as well as relationship between machine data and information. As a result, end users will have easy access to meaningful data from each machine such as production volume, operating performance, energy consumption, etc., this will ensure the highest levels of connectivity and interoperability and allow information to be easily shared throughout an enterprise and beyond.

Commenting on the new companion specification from CLPA, OPCF President, Thomas Burke, noted: “The OPCF is dedicated to producing the best specifications for multi-vendor, multi-platform, information integration, and interoperability for moving data and information from the embedded world to the cloud. The cooperation between the OPCF and CLPA has been very exciting so far and resulted in a detailed companion specification that truly attests to the partnership between our two organizations”.

“Collaboration is the key,” he continued. “We now have the opportunity to roll out significant products from both organizations that are coupled together and provide real solutions for the end users”.

Burke commented: “The CLPA and its suppliers now have plug and play interoperability to the cloud. This is what the end users demand as the Industrial Internet of Things (IIoT) becomes a reality. This is the first of many good things to come, as we continue to evolve the technology of both our organizations. We will always be working closely together to ensure seamless interoperability for our end users”.

Browett concluded: “The OPCF has a variety of different companion specifications available now. CSP+ for Machine is part of that family and is able to increase the amount of options available to people who are using OPC UA technology.”
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August 2018

▶ Download the CSP+ OPC UA Companion Specification here:

■ CC-Link Partner Association
Founded in 2000, the CC-Link Partner Association (CLPA) is an international open network organization dedicated to the technical development and promotion of the CC-Link family of open automation networks. The CLPA's key technology is CC-Link IE, the world’s first and only open gigabit Ethernet for automation and an ideal solution for Industry 4.0 applications due to its unmatched bandwidth. Its main activities include the development of CC-Link IE and CC-Link technical specifications, conducting of conformance tests, development support, and promotion of the CC-Link technologies. The CLPA boasts more than 3,300 members. CC-Link is the leading open industrial automation network technology in Asia and is becoming increasingly popular in the Americas and Europe.

■ Captions
Image 1: Application from CSP+ for Machine to OPC UA Server.
Image 2: CSP+ has long been providing easy drag and drop network configuration using CSP+ files from CLPA partner vendors, by allowing the creation of device libraries

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Contact for inquiries
CC-Link Partner Association-Americas
John Wozniak, P.E.
500 Corporate Woods Parkway
Vernon Hills, IL 60061

TEL: (847) 478-2647
E-Mail info@CCLinkAmerica.org
URL: http://am.cc-link.org/en/index.html