



FOR IMMEDIATE RELEASE

## NEW EDITIONS OF SPECIFICATIONS PUBLISHED FOR FAMILY OF CIP NETWORKS

*Users will benefit from enhancements that expand application coverage and improve ease of use*

Nuremberg, Germany – November 23, 2010 – ODVA announced today that it will be publishing new editions of the specifications for ODVA networks, updating the EtherNet/IP™, DeviceNet™, CompoNet™ and ControlNet™ technologies, and the CIP Safety™ extension to the EtherNet/IP and DeviceNet networks. The ongoing evolution of these technologies continues to help end users to utilize fully their networks for the growing range of industrial applications. Of the 44 specific enhancements to these technologies, ODVA's addition of QuickConnect™ functionality and IP Address Conflict Detection to *The EtherNet/IP Specification* will be of significant interest to end users.

Since USCAR, the umbrella organization for collaborative research among Chrysler Group LLC, Ford Motor Company and General Motors Company, announced in 2006 its intention to promote plant floor standardization on EtherNet/IP, EtherNet/IP has become increasingly adopted as an automotive industry standard by both automotive manufacturers and tier one suppliers, in North America and around the world. Initially used to connect robots, HMIs and programmable controllers, today EtherNet/IP is applied in broad range of real time control applications in the automotive industry, such as weld timers, drives and I/O modules. Because of the benefits realized by the automotive industry in these control applications, the industry looked to ODVA and its members for new features to take EtherNet/IP into the robot arm and onto tool changers, where devices must power up and exchange I/O data with the controller with minimal interruption of production.

ODVA's Automotive Special Interest Group (Auto SIG), drawn from leading controller, robot, tool changer, and on-tool device manufacturers, took an innovative approach to this problem and defined a new, easily deployable timing sequence to connect devices within 500 milliseconds using EtherNet/IP. Officially called "QuickConnect™," ODVA expects to see the first deployments in automotive applications within the next 6 to 9 months, and due to the flexibility of the specification, also expects to see Quick Connect becoming widely deployed in multiple industries. Enrico De Carolis, chair of ODVA's Auto

SIG and Director of Technology Development for ODVA member Numatics, Inc., states that “Over the last few years EtherNet/IP has been adopted for automotive manufacturing applications at a blistering pace. For tool changer applications, DeviceNet with QuickConnect has been used for several years. With QuickConnect now available on EtherNet/IP, automotive users will be able use a single EtherNet/IP network when QuickConnect is needed which will simplify deployment, commissioning, maintainability.”

Recognizing that users continue to enlarge the size of their EtherNet/IP systems in both in terms of number of devices and physical footprint of the installation, ODVA has also introduced a new service for EtherNet/IP networks called Address Conflict Detection (ACD). This feature will improve ease of use for EtherNet/IP users as the trend toward larger systems has made it easier to have system problems resulting from the accidental introduction of devices with duplicate Internet Protocol addresses (IP addresses). ACD will enable EtherNet/IP devices to detect and act upon IPv4 address conflicts, including defending their IP address and providing diagnostics to identify that a conflict has occurred and which devices are involved. ADR helps to solve the historically difficult and time consuming problem of identifying and resolving communication problems caused by IP address conflicts to ensure the consistent behavior of devices in such circumstances. Further, users, who may have been further frustrated by the lack of standards for detecting IP address conflicts, will be pleased to know that ACD conforms to the IETF RFC 5227.

CIP Safety, ODVA's extension to its Common Industrial Protocol for functional safety, now includes the addition of a Safety Analog Device Profile with capability for dual inputs. Introduced in 2002, CIP Safety has been certified by TÜV Rheinland to comply with IEC 61508 in applications up to SIL3, and CIP Safety-compliant devices have been working in the field since 2005.

The specifications are organized as a group of publications entitled The CIP Networks Library. Each specification is made up of one or more volumes of The CIP Networks Library. The current and latest editions of the specifications will be:

- The EtherNet/IP Specification  
Comprised of The CIP Networks Library:  
Volumes One (Edition 3.9), Two (Edition 1.10) and Seven (Edition 1.5)
- The DeviceNet Specification  
Comprised of The CIP Networks Library:  
Volumes One (Edition 3.9), Three (Edition 1.10) and Seven (Edition 1.5)

- The ControlNet Specification  
Comprised of The CIP Networks Library:  
Volumes One (Edition 3.9), Four (Edition 1.6) and Seven (Edition 1.5)
- The CompoNet Specification  
Comprised of The CIP Networks Library:  
Volumes One (Edition 3.9), Six (Edition 1.7) and Seven (Edition 1.5)
- The CIP Safety Specification  
Comprised of The CIP Networks Library:  
Volume Five (Edition 2.3)

ODVA expects that devices containing new enhancements found in the latest specifications will be available in 2011. Specifications are available on a subscription basis, subject to a Terms of Usage Agreement. For more information on how to obtain a copy of any of these specifications, visit ODVA's web site at [www.odva.org](http://www.odva.org).

### **About ODVA**

ODVA, founded in 1995, is an international association comprised of members from the world's leading automation companies. Collectively, ODVA and its members support network technologies based on the Common Industrial Protocol (CIP™). These currently include CompoNet™, ControlNet™, DeviceNet™, and EtherNet/IP™, along with the major extensions to CIP -- CIP Safety™ and CIP Motion™. ODVA manages the development of these open technologies, and assists manufacturers and users of CIP Networks through its activities in standards development, certification, vendor education and industry awareness. As part of its certification activities, ODVA offers conformance testing to help ensure that products built to its specifications operate in multi-vendor systems. For more information, visit its web site at [www.odva.org](http://www.odva.org).

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