15th Term in Review
Report on Activities of Association

Katherine Voss, executive director

General Session and 15th Annual Meeting of Members

www.odva.org
Emphasis on EtherNet/IP

► “Quick Start” Developer Training
  • Multiple courses held in Ann Arbor, allowing attendees to talk with conformance test staff and see labs
  • Also held Quick Starts in Europe (covered in EMEA section)

► Industry Awareness Seminars

► Implementor Workshops
  • Celebrated 10 years of driving EtherNet/IP adoption
  • 4 workshops held
  • 2 PlugFests
Global Presence
Japan

System Control Fair 2011
### ODVA College 2012@Kanazawa

**Global Presence Japan**

**ODVA College 2011@Kanazawa Participants**

May, 2012  

#### Seminar

<table>
<thead>
<tr>
<th>10:00</th>
<th>10:10</th>
<th>開会の挨拶</th>
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<tbody>
<tr>
<td>10:10</td>
<td>10:40</td>
<td>産業用ネットワークの市場動向とEtherNet/IPシステム概要</td>
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<tr>
<td>10:40</td>
<td>11:00</td>
<td>ロックウェルオートメーションジャパン株式会社 プロダクトマーケティング 稲山 知己</td>
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<tr>
<td>11:00</td>
<td>11:30</td>
<td>GIPネットワーク技術の最新動向</td>
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<td>12:00</td>
<td>オムロン株式会社 インダストリアルオートメーションビジネスカンパニー 内藤 健</td>
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<tr>
<td>12:00</td>
<td>12:30</td>
<td>産業用イーサネットのセキュリティ対策</td>
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<td>12:30</td>
<td>13:00</td>
<td>システムテクノロジー合同会社 エンタープライズシステムエンジニアリング 番町 純</td>
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<tr>
<td>13:00</td>
<td>13:30</td>
<td>GompNetの技術紹介と導入事例</td>
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<td>13:30</td>
<td>14:00</td>
<td>オムロン株式会社 インダストリアルオートメーションビジネスカンパニー 佐藤 世紀</td>
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<tr>
<td>14:00</td>
<td>14:20</td>
<td>展示・見学時間</td>
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<td>14:20</td>
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<td>産業用ネットワークの市場動向とEtherNet/IPシステム概要</td>
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<td>15:20</td>
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<td>GIPネットワーク技術の最新動向</td>
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#### Demo

| 12:30 | 13:00 | デモ：プレスリリース |
| 13:00 | 13:30 | デモ：プレスリリース |
| 13:30 | 14:00 | デモ：プレスリリース |
| 14:00 | 14:30 | デモ：プレスリリース |

#### Exhibition

| 10:00 | 10:30 | 展示：製品紹介 |
| 10:30 | 11:00 | 展示：製品紹介 |
| 11:00 | 11:30 | 展示：製品紹介 |

### 展示・実演コーナーご案内

【展示コーナー】
協賛各社のCIP製品の展示をします。
CIP製品の品質の一部を実演してみましょう。

【実演コーナー】
ケーブルの作成、PLCボードの接続、スイッチへの接続、アナライザへの使用
方法など、お客様が実際に事例で適用するよう指導し実演します。
（11:00からの実演14:00までの実演、実演時間）

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**ODVA College 2012@Kanazawa**

**ODVAアカレッジ2012@金沢**

**ODVA College 2011@Kanazawa Participants**

May, 2012

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**ODVA College**

**Conference & 15th Annual Meeting**

www.odva.org
Hannover Fair 2011 & 2012

- First focus on Energy and Machinery Initiatives
- >50 EtherNet/IP products on display in 2012

SPS/IPC/Drives Show 2011

- Launched EtherNet/IP Product Gallery, increasing member participation

Media Briefings at Both
EtherNet/IP Developer Training
- Offered in 2011 in conjunction with EtherNet/IP Implementor Workshop
- Increased attendance for training and workshop; most attendees from Germany
- Offered co-located Quick Start and Workshop in 2012 with similar results

Implementor Workshops and PlugFests
- 4 workshops
- 2 PlugFests
CIP Forums China

- October 20, 2011
- 9:00AM~4:00PM
- Shanghai, China
- Xinguo Hotel
- Attendees 183
Global Presence
China

Industrial Automation Show

November 1~5, 2011
Shanghai, China
Exhibition Center
Pudong

Featuring
Optimization of Energy Usage
Interoperability Demonstration
The Company

Directors in the 15th Term

Michael Höing
VP, Electronics Business Unit
Weidmüller Interface

Cyril Perducat
SVP Strategy-Technology-Solutions/CTO
Schneider Electric

Frank Kulaszewicz
SVP, Architecture & Software
Rockwell Automation

Chet Namboodri
Global Industry Director Manufacturing
Cisco Systems

Bernd-Josef Schäfer
EVP, Engineering & Manufacturing
Electric Drives & Controls
Bosch Rexroth

Raimund Sommer
Managing Director
Process Solutions
Endress+Hauser

Ryuji Yamasaki
General Manager
Drive Development
Omron
The Company

Officers in the 15th Term

- Cyril Perducat, President
- Katherine Voss, Executive Director
- Rich Harwell, Chief Technology Officer
- Katherine Voss, Secretary
- Christopher Lynch, Assistant Secretary
- Frank Kulaszewicz, Treasurer
The Company
Strategic Plan 2011-2020

Living Initiatives are a Central Aspect

- 2010: Energy
- 2010: Growth
- 2011: Machinery

In the 15th term, the Growth Initiative has been a key work activity of the Board.

Ad Hoc Task Forces as needed

- Single wire co-existence
- Security
15th Term in Review
Report on Activities of Association

Rich Harwell, chief technology officer

General Session and 15th Annual Meeting of Members

www.odva.org
Agenda

• Key deliverables since 14th general session

• Organization and process review

• Key work in process
ODVA Technology

CIP Specification Set

EtherNet/IP™
conformance tested

CIP Conformance Testing

CIP Library
EtherNet/IP Library
DeviceNet Library

Technical Publications
Deliverables: CIP Specification

CIP Specification Set

3 publication cycles since last meeting

Highlights include:

• Energy Phase 1: Improve Awareness
• Energy Phase 2A: Improve Efficiency (Idle state)
• Ethernet Switch Object
• SNMP and RSTP Object
• Added Redundant gateways on DLR
• Added sealed EtherNet/IP / M12 connector (1 G capable)
• Safety dual channel analog object
Deliverables: Conformance

EtherNet/IP Protocol Conformance Test Revision CT10
- Added new tests for three energy objects in all device profiles.
- Support Managed Ethernet Switch Device profile and added basic test for Base Switch Object.

EtherNet/IP CT11: Gen 2 (In process)
Deliverables: Technical Publications

Highlights include:

- **Securing EtherNet/IP™ Networks (Initial)**
- **Recommended Functionality for EtherNet/IP Devices (V3)**
- **EtherNet/IP Interoperability Test Procedures (V3.0.2)**
- **EtherNet/IP Infrastructure guidelines (V2 in process)**
- **CIP Energy At A Glance documents**
Organization and Process Review

Strategic Focuses

• Energy
• Machinery
• Cybersecurity

ODVA Board of Directors/Task Forces

Technical Review Board

Special Interest Group

SIG Initiatives
Technical Review Board

Roster

- Chair, Rich Harwell (Eaton)
  - Dave VanGompel (Rockwell Automation)
  - Ludwig Leurs (Bosch Rexroth)
  - Rudy Belliard (Schneider)
  - Paul Didier (Cisco)
  - Jeff Jurs (Omron)
  - Starting in 16th Term (Endress + Hauser)
  - Damien Leterrier (Molex) (Member elected)
  - Joakim Wiberg (HMS) (Member elected)
  - Alain Grenier (ODVA)
Special Interest & Technical Groups

1. EtherNet/IP Physical Layer – Bob Lounsbury
2. DeviceNet Physical Layer – Brad Woodman
3. EtherNet/IP Infrastructure – Mark Rossi
4. EtherNet/IP System – Brian Batke
5. Distributed Motion SIG – Steve Zuponcic
6. CompoNet – Tianbing Li
7. Conformance – Alain Grenier
8. Modbus Integration – Todd Snide
10. CIP Safety – Paul Kucharski
11. Semiconductor – Rolf Enderes
12. CIP System – Dave VanGompel
13. EtherNet/IP workshop – Kevin Knake (NA), Viktor Schiffer (Europe)
14. IO-Link Integration – Frank Moritz, acting chair
Key Work In Process

- **Highlights of work in SIGs**
  - IPV6 accommodations
  - Cybersecurity
  - EtherNet/IP infrastructure interoperability requirements
  - Distributed motion axis object and peer connection
  - Energy Management (phase 2b) CIPSE – power reduction during operational states
  - Safe Motion Device Profiles
  - IO-Link Integration
  - EtherNet/IP physical layer update (ch 8). 1 GBit
General Session and 15th Annual Meeting of Members

ODVA Initiatives

Expansion to Include Process

General Session and 15th Annual Meeting of Members

www.odva.org
Living Initiatives are a Central Aspect

- **2010: Energy**
  An inclusive, and now well developed, initiative supported by principal members Cisco Systems, Rockwell Automation and Schneider Electric

- **2011: Machinery**
  An inclusive, and emerging, initiative supported by principal members Bosch Rexroth, Cisco Systems, Rockwell Automation, Schneider Electric plus two alliance partners – OPC Foundation and sercos international
Living Initiatives are a Central Aspect

- **2010: Energy**
- **2011: Machinery**
- **2012: Process**

With leading industrial automation suppliers, such as Endress+Hauser, as principal members, ODVA will be one of the first associations which strives to support Industrial Ethernet down to the field level in process automation.

**ODVA technologies will provide manufacturers complete, plant-wide network services and infrastructure for discrete, motion, safety and process applications and from plant-floor to IT systems.**
Market Conditions

EtherNet/IP...

... has been accepted and widely adopted in discrete applications.

... has helped to converge control solutions for discrete and hybrid applications.

... creates, by virtue of its adoption in hybrid applications, a critical proof point for adoption in additional process applications.

... makes it possible to replace multi-tier network architecture with a single architecture and provide easy access to process information.
Market Conditions

EtherNet/IP and IP in manufacturing...

...an automation platform for convergence

Discrete ►►► Hybrid ►►► Process

*Objects and services in CIP will create new opportunities for productivity improvements and ROI for process users.*
Next Steps at ODVA

With support from Endress+Hauser along with fellow principal members

- Cisco Systems
- Rockwell Automation
- Schneider Electric

ODVA will be defining the strategic market requirements for an EtherNet/IP-based process strategy.

Technical work will follow.
The Company Directors

Michael Höing
VP, Electronics Business Unit
Weidmüller Interface

Cyril Perducat
SVP Strategy-Technology-Solutions/CTO
Schneider Electric

Frank Kulaszewicz
SVP, Architecture & Software
Rockwell Automation

Maciej Kranz
Vice President, General Manager
Connected Industries Group
Cisco Systems

Bernd-Josef Schäfer
EVP, Engineering & Manufacturing
Electric Drives & Controls
Bosch Rexroth

Raimund Sommer
Managing Director
Process Solutions
Endress+Hauser

Ikuo Tateishi
Corporate Planning Manager, OEI
Acting CEO, STI
Omron
The Company Officers

- Cyril Perducat, Chairman of the Board
- Katherine Voss, President & Executive Director
- Rich Harwell, Chief Technology Officer
- Christopher Lynch, Secretary
- Frank Kulaszewicz, Treasurer
Living Initiatives are a Central Aspect

- 2010: Energy
- 2010: Growth
- 2011: Machinery
- 2012: Process

In the 15th term, the Growth Initiative for the 16th Term and Beyond has been a key work activity of the Board.
Three Pillars of Growth

Accelerate Vendor Adoption of EtherNet/IP

Expand the Ecosystem

Build Industry Awareness
Looking Back to the 14th Annual Meeting of Members
New Organization and Funding Model to support the purposes of the organization per its Articles of Incorporation:

- Promoting the adoption of a viable industrial automation communication network standard, based on the Common Industrial Protocol, including the promulgation of standards, the establishment of compliance criteria, and conformance and compatibility testing; and
- Sponsoring technical developments and enhancements, marketing promotions and enhancements, vendor and user education all as may be relevant to ODVA standards.

To foster the growth of the organization and its technologies, particularly EtherNet/IP and CIP, by instantiating and cultivating activities in support of the Three Pillars of Growth:

1. Accelerate adoption of device vendors within the industrial Ecosystem (Ecosystem);
2. Increase industry awareness and overall adoption within the Ecosystem; and
3. Expand the Ecosystem.

AND

to accelerate the speed and effectiveness of the organization to deliver and execute the activities defined in the growth initiative.
The Company
Sustainability

Aimed at Supporting the Growth Initiative for the Benefit of All Members

- A larger ecosystem benefits all members with a larger market opportunity.

- Increased delivery of market messages to targeted user audiences benefits all members by helping to inform, educate and excite potential customers for ODVA technologies and its members.

- Shortening time-to-market for device vendors, increased product development guidance and global availability of devices benefits all members by reducing their development time, improving product consistency and thus the user experience with ODVA technology and increasing the global market opportunity.
...and YOU...
Going farther, higher, stronger
in the 16th Term!