

## Contents

**ODVA Hosts DeviceNet Contest**

**ODVA Australia Gets Underway**

**ECANZ Exhibit Christchurch**

**Automate**

**Exhibition at Melbourne**

**New Zealand AGM Report**

**Website Info'**

**Membership Certificates**

**Training Requirements**

**Expert Predictions from Orlando**

**Training**

**PDL Electronics drives ahead**

**Chairman Goes Out and About**

**Associate Membership Listing**

**Control 98**

**New DeviceNet Certificate Mark**

**Keystone conformance test**

**New Alternate Transport SIG**

**New Bridge for ControlNet &**

**Foundation Fieldbus**

## ODVA Hosts DeviceNet Contest

*1<sup>st</sup> Prize –*

*All Expense Paid Trip to 1999  
ODVA Meeting in Florida*

ODVA is offering system integrators, end users and OEMs the opportunity to win valuable prizes by sharing with us how they have implemented DeviceNet.

Contest prizes include:

- ☺ An all expense paid trip to Orlando
- ☺ A global positioning system
- ☺ 500 ODVA embossed, 100% cotton t-shirts

Prizes will be awarded to entries that best describe how DeviceNet was chosen, applied and used.

Participation in the contest is easy. Entrants need to go to the ODVA web site and complete the entry form. The forms need to be submitted to ODVA by 20 December 1998. ODVA will then judge the entries and announce the winners on 2 January 1999.

Finalists and winning entries may be publicised. Their application stories will be developed into DeviceNet Case Studies and possible articles that may be placed in industrial automation trade publications around the world. Winners will also receive recognition during a special awards presentation during the ODVA annual meeting.

## ODVA Australia Gets Underway

AFTER the open meeting on the 16<sup>th</sup> of June in Sydney the first Board meeting of the ODVA Australia was held.

The required number of companies confirmed their intention to become Corporate members. They met again after the required 21 days to vote on the decision to formally incorporate the organisation so it could be a national organisation and operate across all states in Australia.

The Board of the ODVA Australia is chaired by Mike Thornley of Cutler-Hammer with Darryl Pearce of MicroMax filling the position of Vice Chairman. The role of Secretary and Public officer has been allocated to Ross Vaughan of Rockwell



Automation while Geoff Rimmington of Omron is the treasurer.

Membership packs have been sent out to companies interested in becoming members of the organisation. To cater for the various interests, several levels of membership have been set with differing ranges of fees; to allow members to gain from the level of membership of their choice.

*(continued on page 3)*

# ECANZ Exhibit Christchurch

The ECANZ Christchurch Trade Show was the first display of DeviceNet products in the South Island. The display was well received, and was the result of a joint effort by many of the Founding Members whose involvement included transporting the equipment to the venue and setting it up.

Once again due to the cooperative effort there was very little cost involved to exhibiting members. All were pleased with the response from South Island Industry and in particular seeing the many companies working together on the one display.

# Automate Exhibition at Melbourne

Planning has begun to provide a true multivendor display where products that connect to DeviceNet can be displayed together.

The theme 'An Open Device Network for Intelligent Devices' has been chosen to bring out the differentiating features of DeviceNet over other bus systems.

Planning for the display is currently under way under the direction of the Corporate members. Companies wishing to display product are invited to contact the interim facilitator or any of the board members.

The display will be attended by staff of exhibiting member companies and will also provide an opportunity for industry to get further information on the open technology that is being chosen as the preferred standard in many applications.

# New Zealand AGM Report

The activities of the ODVA and the scope of the impact of the organisation was reviewed at the AGM on the 23<sup>rd</sup> June at the Quality Hotel in Hamilton.

The meeting attendees were given a full report on the impact of open technology in today's automation environment where users are demanding that the architecture is not of a proprietary nature.

The continued working together of all members is a key to the success of the organisation in New Zealand. There are several companies eager to lead the way with new technology who have been well supported by the combined efforts of other members.

The advantage of a neutral facilitator and global support is another key feature of the organisation and development into new technology areas where information is readily shared to provide solutions and often at no cost.

The expansion of the membership will become a focus for the coming year with the inclusion of several companies who

have products connecting to DeviceNet, or could benefit from information and services available from the ODVA in the region.



A presentation by Simon White of the Waikato Polytech demonstrated the high level of training being provided on the technology of DeviceNet. Despite the low cost of the courses several users still seem reluctant to attend despite the fact that better knowledge can make the a project more cost effective and successful. Meeting attendees discussed methods of increasing the attendance of training courses.

The multivendor-training programme was established as a good initiative and members who have attended confirmed the relevance of the training.

Both the direction of the organisation in New Zealand and the region, and the budget for the coming year were unanimously approved by attending members.

## Website Info'

The addition of a section on the [www.odva.org](http://www.odva.org) has allowed listing of New Zealand and Australian membership. This is a reference for people requiring further information on members' representatives and contact details, along with linkages to their companies websites.

Also listed are details of DeviceNet training for New Zealand and this is updated with new courses when available.

DeviceNet market survey updates are available on the website along with other presentations from the 4<sup>th</sup> Annual ODVA meeting in Orlando. These are all downloadable power point presentations that give an update on technology for anyone studying bus systems, or interested in the future projections of bus technology.

## Membership Certificates

Every Member of the ODVA in New Zealand and Australia for this coming year will receive a certificate suitable for framing and wall mounting. Each certificate is numbered and current for 12 months from the date of payment.

## Training Requirements

Any company requiring special training courses on DeviceNet to be run next

year, could they please contact the ODVA or Waikato Poltech so they can be planned into the calendar for next year. Contact Simon White at

[ecskw@twp.ac.nz](mailto:ecskw@twp.ac.nz)

# Expert Predictions from Orlando

Guest presenters at the Orlando 4<sup>th</sup> Annual Meeting had a common theme – the influence of the Internet and Information Technologies will have a profound impact on the future direction of DeviceNet and its competitors.

These presentations are available for viewing or downloading at the ODVA Web Site [www.odva.org](http://www.odva.org).

*Jim Taylor, Venture Development Corporation*

*Topic: The US Market for Industrial Automation Products Incorporating Device/Sensor Buses*

- 1997 total market was 537,000 nodes, representing only 7.9% of the potential 22 million nodes that could be connected to device/sensor buses.
- The US market is expected to grow at a compound annual growth rate of 38.1% per year to 2,700,000 nodes by the year 2002.
- In the year 2002, DeviceNet is forecast to be the leading bus in the US market with annual shipments of 900,000 nodes.
- DeviceNet ranked first among end-users, machinery OEMs and instrumentation and control OEMs.

*Jim Heaton, AMR Consulting*

*Topic: Plant Networks: Requirements, Alternatives and Market Realities*

- There will never be a Single Fieldbus (or Sensorbus) Market.
- There is a growing influence of Information Technologies (IT); this favours general purpose network technology whenever possible.
- Plug-and-play with plant networks (interoperability) neutralises objections.

*Keith Larson, Penton Publishing*

*Topic: A View of the Bus Wars*

- The benefits of fieldbus and industrial networks are real; there are documented reductions in wiring costs, installation time and debugging/commissioning effort.
- More than one standard is acceptable.
- Ethernet won't conquer every application.



*(continued from page 1)*

The website for Australia has been allocated on the [www.odva.org](http://www.odva.org) site and members can take the opportunity to list their contact details.

Planning for **Automate** in October in Melbourne has begun and details are available to members intending to take this opportunity to exhibit their products. This will be the first opportunity for industry in Australia to exhibit the interoperability of products and the theme will be 'An Open Device Network for Intelligent Devices'.

Details on membership and the exhibition at **Automate** are all covered in the membership pack. Copies of the Membership Pack can be obtained by emailing the Interim Facilitator at [fernbrook@wave.co.nz](mailto:fernbrook@wave.co.nz) or contacting any of the board. Applications for the position of facilitator are currently being considered to allow the support of members on a local basis.

# Training

The training courses provided to date have been very well received by Industry. The high calibre of the courses is a credit to the huge effort put in by Simon White and the Waikato Polytech.

The concept of being trained on products from several members of the ODVA has been well received. It allows exposure to many of the issues that arise in the field when using open networks with products from several manufacturers.

The importance of training cannot be overstated. Even though DeviceNet is simple enough to implement with no training, understanding the full importance of the features of a bus system can make the difference to a project by reducing costs and increasing effectiveness.

There are still vacancies on most courses and special courses for industry groups and projects can be run if sufficient notice is given. Each attendee of the ODVA Approved Course receives a personalised certificate. These certificates are required in critical industries before working on some installations where in the past there has been insufficient training in the design of a DeviceNet Network.

## Upcoming Courses

**28 Oct:** DeviceNet Cabling installation course, 1 day

**24-25 November:**

Device Net software configuration software configuration course using DeviceNet manager software, 2 days

More details of course content and frequency are available on the website [www.odva.org](http://www.odva.org) under the New Zealand section.

# PDL Electronics drives ahead



The Ultradrive Elite, Microdrive Elite and Xravert series of motor controllers have been used in a range of applications in a diverse range of industries using DeviceNet.

The Southern Hemisphere's leading AC motor controller manufacturer, PDL Electronics Ltd, began supporting DeviceNet after a careful evaluation of bus systems that were in use in industry, approximately four years ago – beginning with the development of devices connecting its AC drives onto third party interfaces.

Wide market acceptance of DeviceNet led PDL to develop a range of DeviceNet interfaces that were able to interface directly between the PDL drive and the DeviceNet Network without additional third-party interfaces.

Today PDL Electronics has successfully supplied in excess of 400 DeviceNet interfaces for several major projects, largely in NZ and Australia.

With an increasing emphasis on standards, PDL Electronics implemented DeviceNet interfaces following the AC Drive Profile defined in DeviceNet specifications – including interfaces for the Elite (EDNi), Xravert (XDNi), Microdrive-

3/i (UDNi) and Microvector-3/i (VDNi) series of motor controllers.

By standardising the user interface, the commissioning and maintenance of an installation of the DeviceNet network is simplified as operators only need learn one common interface for products from multiple vendors.

Currently all these interfaces have been designed in accordance with the DeviceNet specification and tested with the DeviceNet conformance test suite. PDL Electronics is now seeking independent certification and has submitted the EDNi interface for testing at an ODVA Independent Test Laboratory.

If you'd like more information about any PDL Electronics Ltd motor controllers or serial communications interfaces please contact Head Office at:

[marketing@pdl-elec.co.nz](mailto:marketing@pdl-elec.co.nz)  
Phone: 0800-735-4357  
81 Austin Street  
Napier,  
NEW ZEALAND

#### Features of PDL DeviceNet interfaces:

- AC Drive profile I/O Assembly Instances 20/21, 70/71 as well as vendor defined instance 100/101 for extended control functions.
- Explicit messaging services permits online configuration via DeviceNet Manager.

## LOOK WHO'S TALKING

### Introducing the PDL DeviceNet Interfaces...

- Compatible with PDL's Microdrive Elite and Xravert drives
- LED Diagnostics
- Supports AC Drive Object Profile, I/O Assembly Instances 20/21, 70/71, 100/101

### PDL ELECTRONICS LTD

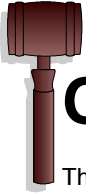
LEADERS IN AC MOTOR CONTROL

Head Office:  
81 Austin St, Napier. Ph: 0-6-843 5855. Fax: 0-6-843 5185  
PDL Website: [www.pdl.co.nz](http://www.pdl.co.nz)

Freephone 0800 735 4357

Offices in Auckland, Wellington and Christchurch





# Chairman Goes Out and About

The 16<sup>th</sup> of June saw the first steps to formally establish the ODVA Australia User Group. Eighteen attendees from 15 different companies gave the approval to the concept of an ODVA for Australia on a similar basis to that in New Zealand. From that time the legal process has been continued with applications for membership now open.

The current focus is on getting the organisation running well in the lead up to the Automate exhibition planned for October in Melbourne.

The AGM of the New Zealand ODVA was attended by 27 people from 23 companies where members were brought up to date on the activities of the organisation and the plans for the coming year were discussed.

The organisation is progressing at a rate faster than initially considered and has become involved in many key areas of industry.

In New Zealand after 6 successful trade shows Control 98 is the next focus of the organisation where industry can see the members and companies connected with DeviceNet working together.

The attendance of the ODVA Annual meeting in Orlando in May allowed me to discuss the organisation here in this region and come up to date with technical developments with DeviceNet from a global perspective. I can report that the ODVA is a truly open organisation and there is the opportunity for anyone interested in contributing to the technology to take part.

The support to fund attendance at this event without drawing on the organisations funds is appreciated and I am sure this will have a benefit in the months to come as we embark on several new initiatives.

My involvement in the development of ISO standards based on CAN technology is a tough schedule but very important with the requirements for the intelligent features of the new products being developed to connect to DeviceNet. These intelligent products are unique to the new paradigm of producer consumer and proving very much in demand by industry.

I was elected at the first meeting in Hong Kong to begin the project with further meetings planned in Europe and the USA.

DeviceNet is now being specified by many users of Automation and the "Project Focus" of the ODVA allows several companies to offer a selection of products to be chosen by the end user based on price and feature.

The inclusion of pages on [www.odva.org](http://www.odva.org) for both New Zealand and Australian organisations means that issues such as membership, training and copies of this newsletters are always available and up to date.

The acceptance of DeviceNet and the continued support of member companies shows the acceptance of the open technology concept where several organisations consisting of vendors and users can work together to support open technology.

*Graeme Meyer*

## Associate Membership Listing

Previously "Associate Members" names were not listed, but, as a result of a request at the AGM, associate members of the organisation in New Zealand have the option of their company being listed as a member.

Any company joining as an associate member can request that their name is not included in the published list.



The Ellerslie Convention Centre ~ care of [www.imc.org.nz](http://www.imc.org.nz)

## Control 98 Ellerslie November 18,19.

Planning has begun to provide a true multivendor display where products that connect to DeviceNet can be displayed together. The theme 'Intelligent Products, Intelligent Network Intelligent Choice' has been chosen to bring out the differentiating features of DeviceNet over other bus systems.

Planning for the display is currently under way under the direction of the Founding members and companies wishing to display products are invited to contact the facilitator or any of the board members.

The display will be attended by staff of exhibiting member companies and will also provide an opportunity for industry to get further information on the open technology that is being chosen as the preferred standard in many applications.

The exhibit will also feature several live exhibits showing the benefits of DeviceNet.

Also featured will be the large number of products being engineered by New Zealand companies for New Zealand Industry to provide solutions for several engineering challenges where the intelligent features of DeviceNet are required.

Detailed information is available at [www.imc.org.nz/contrl98.html](http://www.imc.org.nz/contrl98.html)

# New DeviceNet Certificate Mark



The new DeviceNet Certification Mark was introduced at the 4<sup>th</sup> Annual Meeting in Orlando. The mark is a derivative of the DeviceNet logotype,

with a "checked" mark enclosed in a box replacing the "V" in DeviceNet and the words "Conformance Tested" below the logotype. The mark is intended to be placed on DeviceNet products after they have successfully passed conformance testing at one of ODVA's three independent test labs. The mark certifies that the product passed conformance testing.

Conformance testing ensures that products from different vendors integrate seamlessly in an application, and the Certification Mark provides a quick reference for end users and OEMs that a DeviceNet product has passed independent testing.

## Keystone conformance test

*The Keystone Hygienic Valve featured in the last issue of the DeviceNet Newsletter has just been confirmed as passing the conformance test.*

The achievement of Conformance Approval is no simple task for such a complex product and is an indication of the commitment to industry of Keystone Tyco. The gaining of this approval will allow the product to carry the new Logo showing proof of conformance, which is very important in many industries.

Congratulations to the technical staff of Keystone as there has been a major commitment to this product and the additional effort to gain Conformance Testing Approval is recognition of that commitment.

## New Alternate Transport SIG Forming

*Moving DeviceNet messages over TCP/IP*

A common theme of the guest speakers at the 4<sup>th</sup> Annual ODVA Meeting was the prediction that Internet technology will be used in field devices, and that all networks must carry multiple communication stacks.

The formation of the DeviceNet Alternate Transport Special Interest Group was announced.

Its goals are:

- Look at ways to move DeviceNet messages using Transport Layers (layers 1-4 in the OSI stack) other than CAN – such as TCP/IP, Ethernet, and Asynchronous Serial Link.
- Explore Routing, Bridging issues.
- Establish liaisons with appropriate organisations such as IETF, IEEE and Foundation Fieldbus.

## New Bridge for ControlNet & Foundation Fieldbus

The Linking Device is a bridge between ControlNet and H1, the intrinsically safe network designed for process measurement and control devices.

Foundation Fieldbus primarily addresses process devices, but many users need to mix manufacturing and process equipment. ControlNet provides the network to integrate process devices with manufacturing devices.

The SIG has been a forum to exchange information on the development and demonstration of the linking devices among companies that supply devices on both networks. The linking product will debut at ISA '98 in Houston. The linking device is a hardware bridge that connects two H1 sub-networks to a ControlNet network. The ControlNet network can be coax or fiber, single or dual redundant media and can be operated in an intrinsically safe environment, all requirements of process customers.

A special configuration package allows the H1 devices to be configured in function-block language from a PC on ControlNet. This eliminates the need to connect a laptop to the H1 network, a plus for this type of multi-layered network approach since process users have expressed concerns about connecting laptops to intrinsically safe H1 networks. The same PC automatically generates ControlNet EDS files for the H1 devices and allows the set-up of ControlNet to H1 device communications.