FOUNDATION™ Fieldbus End Users Council Australia

Newsletter Issue No 16- November 2003

FROM THE CHAIR

Hi Fellow FFEUC-Australia members, time has flown again since the last newsletter in August and the silly season is about to "hit" us again. Seems like five minutes since the last one.

Firstly this week we had some really sad news that one of our "stalwart" founding members Paul Davies had died after a short illness. We will really miss Paul in that he did some sterling FFEUC committee work for us especially in terms of Jump Aboard organisation and of course his work some time back on the CCI Centre of excellence. Our sincere commiserations are sent to his family, colleagues and friends.

We had our AGM back in September as well where several of us were re-elected and others elected onto committee. Personally I thank you all for your continued confidence and support, we will all endeavour to make 2004 another "watershed" year for the FFEUC-Aus. The MOM will be issued shortly and will be available on our website http://www.iceweb.com.au/ffeuca/Minutes.htm

Last month the Foundation Fieldbus End User Advisory Council (FFEUAC) had its Bi-annual conference call and meeting at the ISA conference in Houston. We discussed several issues including:

- Foundation Fieldbus System Engineering Guide- This was prepared by the FFEUAC committee and is a great resource. It is available on the web at www.fieldbus.org
- James O'Gray Scholarship fund - The James O. Gray – Fieldbus Foundation Scholarship Fund will provide awards of up to $1,000 each, per year, to eligible students studying industrial automation. The FFEUC Aus Inc is pleased to announce that we will be contributing US$400 per annum (funds permitting) to this fund. For further information see www.fieldbus.org/Scholarship
- Next FFEUAC Project- An economics of FF whitepaper is under consideration.

In February I will be attending the FF general assembly and FFEUAC meeting. Should you have any FF End User issues that you wish to be brought up please let me know. This is your opportunity to get issues raised at a high profile level.

If you feel your institution in Australia meets the criteria to participate in the scholarship program please contact me (details below)

Our latest initiative is to obtain hardware quotations for 5 training kits which will be suitable for hands on training. Should we go ahead with this we will be utilising some of the funds generated from Jump Aboard.

Our next technical meeting will be in late February and we will be giving a technical tutorial on the FF Engineering Guide. It is likely that this will take us over several technical meetings and will be very useful to improve FF knowledge.

As it is unlikely that there will be a further newsletter before Christmas and the New Year I send you and your families best wishes.

Jim Russell

Chair Foundation fieldbus End User Council Australia- Inc

Phone (08) 93970249

Email: jimrussell@iceweb.com.au

CHAIRMANS AGM REPORT 2002-2003

This past year has been a hectic one to say the least, we have has some successes and in other instances things have not quite worked out as we wished. Not withstanding that we have worked through the issues and have strategies in place to resolve them.

The committee has worked harder than ever the pressure of tight deadlines and also doing "their day job". I would like to take this opportunity to thank them all for their efforts. In particular I must thank my "right hand man" Tiong Lim who has been a fantastic worker, always with a "smile", even when the "grouchy" Chair pushes even harder! Others that have worked over and above the call of duty is Allen Tighe, Nic Christodoulou, the late Paul Davies, Mel Oliveri and David Edge. Sincere thanks again to these individuals.

Also I am glad to report that the organisation is in a sound financial position, again this is the result of rigorous financial management.

A most pleasing aspect is that the FFEUC-Aus Inc is seen as the leading FF End User Council in the World. Our membership is in excess of 400.

I have noticed a notable change in the perception of Foundation fieldbus over the past six months in particular. Large organizations are now starting to realise that there is a real opportunity to improve the bottom line by the use of this very smart digital technology when it is combined with a "different way of working" mentality.

There has unfortunately been little change in Engineer's attitudes however in that in the main "Apathy" still rules, with the common approach of "she'll be right mate", especially in regards to FF competencies. The fact is that when the projects go wrong the fingers will be in fact pointed at the technology, rather than where it should be …more at home. This has been shown in the disappointing numbers attending JA2003, with the very task of getting individuals along like "pulling teeth".

Subcommittees have still not been set up in the Eastern States, not for the lack of trying; it is just a matter of finding motivated individuals with the time to devote to their set up.

Notable successes for the period have been:

JUMP ABOARD SEMINARS

Jump Aboard 2003 was again an outstanding success. Credit must go to the seminar sub-committee for superb organisation. The range of International speakers were the best ever and all commented on that fact. The only problem was the poor attendance especially in Sydney and Melbourne. The event was extensively advertised in those States without much success.

Notwithstanding the attendance the event was a financial success, ensuring our financial strength to get on with some more initiatives in 2004.

REGULAR TECHNICAL MEETINGS

We have continued to hold technical meetings on a bi-monthly basis. These have been very successful with attendances up to 50 people. Generally they run for two hours on a Friday afternoon, a time which seems acceptable to most.

WEBSITE

The FFEUC website which is hosted by ICEweb is regularly up to date and has details on committee information, FF End User Tools, Newsletters, our Charter, Links/Forums, Technical Information, Details of workshops and our Centre of Excellence. We actually have two sites, the local one on www.iceweb.com.au and the Foundation site on www.fieldbus.org/International/Australia

The technical information is very useful and has some very useful information posted. There will be further items added and updates to the site, so keep looking for new updates on www.iceweb.com.au/new.htm

I would like to thank Nic Christodoulou for his terrific job in keeping the fieldbus.org site up to date.

SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY- FOUNDATION FIELDBUS ESSENTIALS COURSE LICENCE

We have renewed our licence for the year April 2003- April 2004 and courses are being held on a regular basis.

SAIT DISCOVERY COURSE

Owing to a lack of hardware we have not been in a position to move ahead with this.

FOUNDATION FIELDBUS END USER ADVISORY COUNCIL

I attended the FFEUAC meeting in January. This was held in conjunction with the General assembly in Singapore. The main focus of activity was to get out the Foundation fieldbus engineering guide. This will be released by the foundation shortly.

CENTRE OF EXCELLENCE

This is not a good story as the facility has fallen into slight disrepair because of lack of funding. Some of the equipment is out of date.

EMERSON USERS GROUP - MELBOURNE

I presented the paper “Fieldbus the Route to the Future, Going where No Instrument Engineer has gone before.

COMMITTEE

My thanks go to the committee who have tirelessly worked for the future of the wonderful engineering discipline in which we work. In particular I must thank Tiong Lim who as Secretary and been my "right hand man" and without whom the FFEUC would not be the success it is today. Special mention must also go to Alan Tighe, the late Paul Davies, David Edge, Mel Oliveri, and who provided the horsepower to make things happen.

Jim Russell

Chair Foundation fieldbus End User Council Australia Inc

AUSTRALIAN INDUSTRY NEWS

Woodside has awarded Honeywell a $5.5 million contract to supply the control systems for the Enfield Floating Production Storage Offtake (FPSO) project. The Enfield FPSO will be located 50 kilometres offshore from Exmouth on the West Australian coast and is due to begin oil production in mid- to late-2006. The control system for the Enfield project will include Honeywell's Experion PKS® next generation Process Knowledge System and FOUNDATION* Fieldbus technology.

Santos, Australia's largest on-shore natural gas producer, has selected Emerson Process Management, a business of Emerson (NYSE:EMR), for its Asset Control Enhancement (ACE) project to upgrade the automation system at the Moomba oil and gas processing plant estimated at approximately $10 million. Emerson's PlantWeb digital plant architecture automates the flow of information to all users who run the plant, enabling needed improvements in reliability, availability, and efficiency. DeltaV™ automation system will provide the blueprint for and deliver information needed to optimize plant performance and reliability." The FOUNDATION fieldbus certified instrumentation for the project includes pressure and temperature transmitters, magnetic flowmeters, and vortex flowmeters; analyzers; Coriolis flowmeters; and valves with digital valve controllers.

Interoil PNG Refinery Project. Engineer: Clough
Yokogawa received a contract for Centum CS3000 Process Control System and ProSafe-PLC Safety System for the only oil refinery in PNG during 2002.
The main process control instrumentation was also supplied by Yokogawa, including pressure, temperature and flow instruments and valve positioners. All instrumentation on the project has been specified for Foundation Fieldbus, with only a few particular instruments being conventional 4-20mA. The majority of segments are provided with dual redundant FF H1 cards. The project was wholly engineered from Yokogawa's Perth office, and the system site acceptance testing is in progress during Q4 2003.

HIsmelt Kwinana Project. Engineer: Kvaerner Clough JV
The engineering is in progress for the HIsmelt iron smelter being built in Kwinana, Western Australia. Yokogawa has received orders for a Centum CS3000 Process Control System, as well as Safety Systems and various PLC packages, and also for field instrumentation. The project engineers have chosen Yokogawa YVP Foundation Fieldbus valve positioners for important control loops, especially to gain benefit from the extensive diagnostics afforded by the new technology being fully integrated into the Centum CS3000 system and Yokogawa's Plant Resource Manager software. Specific monitoring loops are provided with FF technology in order to simplify wiring, however many traditional 4-0mA devices are also being used. The overall total of FF H1 segments is approximately 30.

Origin Energy Bass Gas Project. Engineer: Clough
Yokogawa is presently completing a Centum CS3000 Process Control System and ProSafe-PLC Safety System for the Bass Gas project at their Melbourne office. The project consists of an onshore natural gas processing facility, with an un-manned offshore platform also having Yokogawa systems on board. The project engineers selected Foundation Fieldbus as the preferred process control instrumentation technology for the project, with Yokogawa supplying pressure, temperature, flow instruments and Foundation Fieldbus valve positioners. Where possible, all PCS devices are Foundation fieldbus devices, with an overall total segment count of approximately 46 segments onshore and 14 offshore. All segments are supervised with dual redundant FF H1 interface cards

IAN VERHAPPEN'S HIGHLY ACCLAIMED POCKET BOOK

A sure sign that Foundation Fieldbus technology is gaining acceptance in the industrial automation market is the fact that ISA's "Foundation Fieldbus: A Pocket Guide" by Ian Verhappen and Augusto Pereira sold out at the recent ISA show in Chicago. This book is one of ISA's top 10 sellers for 2002. It provides quick reference information on the Foundation Fieldbus H1 protocol, installation tips, and other useful information that design engineers, control system engineers, and instrumentation technicians need to know about Foundation Fieldbus when meeting with a vendor or client, and while managing an installation at a job site.

The pocket guide covers essential information on power distribution and network power supply requirements. Packed with handy reference information, the guide includes rules for cabling length, documentation requirements, a commissioning checklist, topology diagrams, system sizing formulas, and tips for integrating with other systems. It explains the Fieldbus Intrinsic Safety Concept (FISCO) along with configuration and troubleshooting tips. Helpful worksheets for segment loading and bandwidth calculations are also included.

Available from ISA at US$42 excluding postage.

LATEST INFORMATION VIA THE FFEUC-AUS WEBSITE

For the latest information on all FFEUC-Aus Inc activities and some great Foundation fieldbus technical data please visit our website www.iceweb.com.au/ffeuca/index.htm

Latest FF News

FF, HART and PNO collaboration enhances capabilities of Device Description Language

AUSTIN, Texas, Nov. 17, 2003 — In an unprecedented collaborative effort, three leading organizations dedicated to control network technology, the Fieldbus Foundation (FF), HART Communication Foundation (HCF) and PROFIBUS Nutzerorganisation e.V. (PNO), have completed the initial phase of development for key extensions to Electronic Device Descriptions (EDD) defined in the International Electrotechnical Commission (IEC) 61804-2 standard. IEC 61804-2 is the only international standard for device descriptions. Within FOUNDATION™ fieldbus, an EDD is referred to as a Device Description (DD).

The EDD enhancements, which were defined by a working group that included participants from ABB, Emerson Process Management, Endresss+Hauser, FlowServe, Honeywell, Siemens, Yokogawa, and FF and HCF staff, are included in a draft specification that all three control industry organizations will validate in a lab environment and integrate within their respective technologies. Building on the current IEC 61804-2 standard, the working group extended EDD to provide graphical visualization of data, improved data organization, and persistent data storage

Fieldbus Foundation Director of Technology Development Dave Glanzer complimented the cooperative team on its work. “The team did a fantastic job of defining the extensions and delivering a common specification that all three organizations can support,” said Glanzer. “The good news for manufacturers is that those requiring the extensions will have the ability to use them, and those who do not require the extensions will continue to develop EDDs as they do today.

"The three technology organizations have listened to the market and responded with a successful collaborative effort extending the EDD specification to meet industry needs. Our partnership extends EDD and builds on 12 years of successful usage by manufacturers and end users, providing additional assurance that investments in device descriptions are safe and sound. We share a common technology and a common goal for the future.”

Glanzer added, “We achieved our initial goal of development of a common draft specification for advanced visualization that maintains the proven integrity of EDD technology, and most importantly, retains its greatest advantage: operating system and protocol independence. EDD, approved by the IEC as Draft International Standard 61804-2, is already the de facto standard for countless installations around the globe. Our extensions have built on the IEC standard and allow for implementation of additional functionality for complex devices. The three organizations will now move forward independently with validating the draft spec to insure compliance and usability of the extensions through lab implementations of each of the technologies.”

With over 15 million EDD-based FOUNDATION fieldbus, HART and PROFIBUS devices installed worldwide, EDD is the most important and widely used descriptive language in the automation industry. EDD provides a structured text language that is operating system and hardware platform independent.

Automation device suppliers use EDD to provide information on parameters and other data in a device. The host reads the EDD to integrate, configure, setup, operate, diagnose and maintain the automation devices.

The EDD extensions are built upon the existing IEC standard. This approach has many benefits. For example, device developers do not need to deal with the burden of designing and programming a graphic display system that must run under a variety of platforms and environments, from large Human-Machine Interfaces (HMIs) to the small handheld. Instead, they can utilize common graphic display capabilities provided by commands in the EDD. Since many host systems today already implement EDD-based graphic display systems, devices using the extended EDD have a common look and feel with existing devices. This permits uniform integration, configuration/setup, operation and diagnostics/maintenance—all very important in an interoperable, multi-vendor environment.

EDD also provides operating system and platform independence, which eliminates the need for special "plug-in" executable code that is costly to develop and can jeopardize the host's control over the human interface and operating environment. In addition, extended EDDs follow proven test and registration procedures, including the same strict revision control policies as today's EDDs, thus eliminating problems in the field.

The EDD extensions enable device developers to logically organize the large number of parameters in complex devices. They also allow the inclusion of images (e.g. jpg files) to aid the user in device configuration.

With extensions to any standard, it is important to maintain compatibility with existing technology. The implementation of EDD extensions are designed to be completely compatible with the existing technology.

For field device developers, there is no need to learn a new, operating system-dependent programming language, since EDD is not tied to any specific platform. For simple devices, developers can continue to write EDD like they do today using the existing or extended DD Tokenizer tool. For more complex devices, developers can build upon their existing EDDs (cut/paste) to create an advanced EDD using the extended DD Tokenizer tool.

On the host side, the host supplier simply integrates the updated DD Services which can read existing and extended EDDs.

The success of the collaborative effort to extend the EDD standard serves as a model for future work. Equipment suppliers and end users greatly benefit from building on open, international standards, and from use of common technology.

The October 2003 Fieldbus Report NOW available online

Read about the growing progress of FOUNDATION fieldbus as the technology rapidly grabs the attention of many end users worldwide. Also, read fieldbus related articles from major manufacturers in the industry telling why FOUNDATION fieldbus has everyone talking and why it's the technology of choice.

Click here to go to the October Report: http://email2.controleng.com/cgi-bin7/DM/y/eWKb0E7x3r0Hdo0hai0AP