

# ABBHEY NEWS

OFFICIAL ABBHEY SYSTEMS NEWSLETTER

MARCH 2010

## TRAINING COURSES

Our next Training Courses are scheduled for November 2010.

General Ops	Mon, Tue 1,2 Nov	\$935
Programming	Wed 3 Nov	\$550
Reporting	Thur 4 Nov	\$550
Aspex	Fri 5 Nov	\$550
Hardware & Technical (water)		
	Tue, Wed 9,10 Nov	\$1,100
Hardware & Technical (power)		
	Thur, Fri 11,12 Nov	\$1,250

We're considering running two different hardware and technical courses and are interested in receiving your feedback on the proposed content.

The first will have an emphasis on water industry applications, covering:

- Swampfox RTUs, Micro & Minilink legacy RTUs
- Modbus and DF-1 serial protocols
- IP RTUs - setup, debugging tools and techniques

The second would be the Power Hardware & Technical course which was successfully trialled at last November's courses. It covers:

- Powercat and Topcat RTUs
- Serial protocols typically used in the Power Industry (Modbus, DNP3 Master, DNP3 Slave, also Ethernet protocols DNP3/TCP, HDLC/IP)
- Load Management Systems, incl specialised hardware, firmware and software
- Setup of SCADA Gateways, Fox and Foxcub fibre converters
- Debugging networks, the tools available and techniques used

If either of these courses is of interest please let us know ASAP as there are limited places on each.

Whether we run either or both of these courses will depend on the registrations of interest we receive over the next 3 or 4 months.

Lunches are catered and included in the pricing. There are a number of well-priced hotels within walking distance of our offices.

Please ring us on 04 385 6611 or email [cathy@abbhey.co.nz](mailto:cathy@abbhey.co.nz) to reserve your place.

## STAFF CHANGES

Abbey Systems welcomes our newest staff member, James Murphy.



James recently emigrated from the UK after holidaying here two years ago and deciding he liked the place. He has an Electrical Engineering degree and previously worked for United Utilities in Warrington.

James joins Graeme and Leonie in Applications Engineering and in a customer support role.

Please be gentle with him.

Effective the beginning of February Leonie has moved to a part-time role, three days per week. As a result, calls for support when she is not at work may be returned by another staff member who may not have quite the intimate knowledge of your system's unique features that she does.

It's unusual in any business these days to have as many long-serving staff members with the attendant retained knowledge as Abbey Systems has. We believe it's in our customers' best interests to have a number of Abbey staff able to support a site rather than just one, and the changes above will serve to improve our support for your system in the longer term.

## SYSTEM DOCUMENTATION

This brings us to the subject of 'site specific' documentation, something we think every system should have. It's the source document that outlines what the system outputs are and what the expected behaviour of the system should be. It may explain the rationale behind the setup and should include a drawing of the SCADA Master, radios and IT connections, PCs, modems, com ports etc, even a listing of the RTUs on each comms channel.

Programs should also be documented with an overview and perhaps a flow diagram. You may even want to include a copy of the significant HMI graphics screens.

Some of our customers also find it useful to create Aspex screens displaying IT and radio communications network connections, in addition to their hydraulic or power distribution networks. Certainly as systems become more IT-focused there is a benefit in being able to see at a glance the IP address of relevant sites.

A large portion of this system information can be gleaned from the SCADA Master configuration file. However, there is significant portion of Operational processes such as Disaster Master provisions and off-site file and database backup procedures that if documented, could well benefit customers and our staff in times when problems arise.

We are available to carry out some of this work on your behalf, at least enough to get you started. It would be in a Word document that can then become your internal reference, for you to update with changes as they are made.

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## SECURE LINK VIA TELECOM

Abbey Secure Link™ allows users secure broadband connection for fixed service and 3G cellular applications. It lets you scan the Aspex screens at the SCADA Master or Powerlink Telemetry Server screens from the luxury of your laptop PC in the local café truck.

Telecom currently offers three hardware options and three XT plans.

Hardware options

1. Telecom MF626 T-Stick \$99 3.6Mbps
2. Telecom MF636 T-Stick \$199 7.2Mbps
3. Telecom MF668+ Turbo T-Stick \$349 21Mbps

Plan Options

1. Prepaid Casual \$1 a day for up to 10MB + \$1 for each extra MB
2. Mobile Broadband Prepaid \$30 for 500MB expires at end of each month
3. Mobile Broadband 2GB \$50/month on a 24 month term (standard \$60/month)

These are retail prices, but you get the idea.

The speed of Hardware Option 1 is easily enough for Abbey Secure Client. The data in Plan 1 is enough for reasonable use of Abbey Secure Client, but completely inadequate for watching YouTube videos. This is not an endorsement but a selection based on Telecom's current website listings. We have clients using Secure Link over both Vodafone GSM and Telecom XT networks for daily operations.

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## XT SMS ALARMS

While on the topic of Telecom, several customers have recently asked about using Telecom's new XT network to send out SMS Alarm messages. Apparently calls between groups of Telecom mobiles are free.....well, at present they are.

We can report that the standard GSM and CDMA modems we have been using for the Vodafone and Telecom networks are unsuitable for the XT network. However we're expecting new modem hardware to test soon that is supposedly compatible. For customers wanting to install a modem for SMS Alarms right now we can only supply a Vodafone GSM modem. Alternatively, wait until our testing is complete on the XT modem and Telecom has been able to improve the performance of their network.

*Abbey Systems Ltd cannot be held responsible for the services of the cellular network or paging network providers.*

## POWERLINK TELEMETRY SERVER / SCADA MASTER SOFTWARE

### INCREASE IN NUMBER OF ALARM ACTIONS

Powerlink has recently had an increase from 15 to 80 in the number of Alarm Actions available. For some years now Powerlink has had 15 primary and 25 secondary Alarm Actions. A Primary Action is one that can be selected for a status or measurement change - it generates an Alarm and sends it out to a pager or cell phone. The alarm can step to a Secondary Action if it isn't acknowledged in the prescribed time. With the increase to 80 Alarm Actions, all 80 can now be configured as Primary or Secondary Actions.

We know several customers have filled up the original 15 Actions and are needing more. If you'd like this update and have a support contract then the Powerlink software is at no charge. If you'd like assistance rearranging your existing Alarm hierarchy then we can schedule that work at our standard rates.

This update is available in PL3.7.3 built from 2010-03-09 onwards.

### INCREASE IN MAXIMUM NUMBER OF PROGRAMS TO 2000

Powerlink Standard comes with 250 programs and could previously be upgraded to a maximum of 1000. We've extended this maximum at the request of several customers to 2000. The additional programs may be purchased in blocks of 250 or 500 programs.

### BUILTIN ALARMS

Powercat, Swampfox, Topcat2 and Powerlink RTUs should have at least 13 Bultins configured. These I/O monitor the RTU and can be returned to the SCADA Master. This number of Bultins is extra to what were the seven Bultins normally configured for the Modulink family of RTUs (Modulink / Microlink / Minilink, etc).

Of these additional Bultins, Bultin No.8 "Brrr 008" Modules Offline / Online, is probably the most important, and should always have an Alarm Action configured. This Bultin is

particularly relevant to the Powercat/ Powerlink, SF3 and TC2-3 RTUs, which have more than one I/O module. It is important to have this Bultin No.8 configured, to know if any one module in a RTU has gone Offline.

For the record, the Bultins above No.7 are as listed (with their suggested configs):

Brrr 008 Modules OFFLINE / ONLINE (Alarm Action configured !!!)	L1 S1	0110
Brrr 009 Reserved / (Reserved) (No Alarm Action)	-	0000
Brrr 010 RTU System Event ON / OFF (No Alarm Action)	-	0110
Brrr 011 RTU Restarted / (RTU Restarted) (No Alarm Action)	L1 S1	0100
Brrr 012 Remote Acknowledge / (Remote Acknowledge) (No Alarm Action)	L1 S1	0101
and the rarely used (but listed if the RTUs IRIG-B Time Synch input is used):		
Brrr 013 Time Sync FAULTY / Time Sync OK (Alarm Action configured)	L1 S1	0110

## SCADA MASTER PC XPP

### SERVICE PACK & SECURITY UPDATES

Customers are asked to please check to see that your SCADA Master and Backup PCs are all running Service Pack 3. This is important as otherwise *bad things can happen*. If you need Abbey Systems' assistance to upgrade and have a current support contract then we are happy to supply a DVD with XPP SP3 + appropriate security upgrades for you to apply.

On the subject of SCADA Master PCs, we've recently encountered a similar problem at two different customer sites. A new IT network account had been established for the Telemetry PC, with the default power management settings used; these settings hibernate the PC after a period of time and as a result Powerlink stopped working. The power settings must be set so that the PC never hibernates or goes into standby mode. Remember, there may be no-one sitting at the PC, but it's still working.

As a result of these two occurrences we've developed a guide for running and connecting SCADA PCs to a Local Area Network. This will be included in the next issue of the Catalogue and Price List when it is published. In the meantime here are the details.

The PC that Powerlink runs on must have:

- 1 XPP Service Pack 3
- 2 Minimal power management - it should never go into standby or hibernate
- 3 A local user account with admin access rights
- 4 The PC must automatically log in to the local admin account on boot-up and run Powerlink via a suitable shortcut in the Startup folder. It must be able to do this without any external network resources available even if it is normally connected to a LAN.

If it is on a LAN we strongly recommend:

- 1 A fixed IP address
- 2 Windows-critical updates are downloaded but not applied without manual intervention
- 3 Windows updates are not left to accumulate; they should be applied at least once a month
- 4 The system time is kept accurate by getting time from a local time server
- 5 Windows firewall or something more powerful to protect against incoming attacks
- 6 Operational procedures to prevent any untrusted applications being loaded on the PC, rather than virus protection software.

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Please contact Steve Dorrington with any questions arising from this issue  
04 385 6611 or [steve@abbey.co.nz](mailto:steve@abbey.co.nz)

If you would like someone added to or removed from the mailing list, please contact [cathy@abbey.co.nz](mailto:cathy@abbey.co.nz)