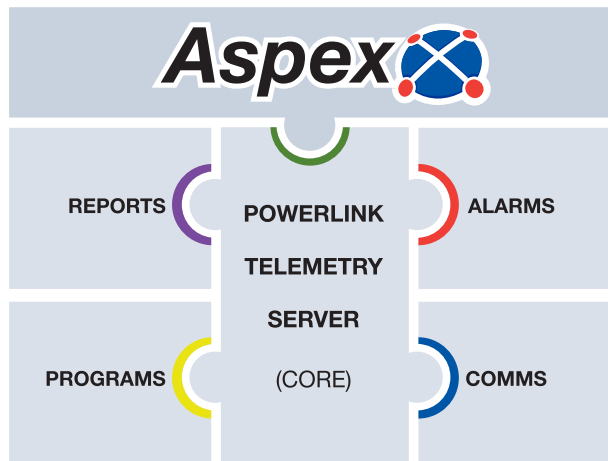# *Powerlink Telemetry Server* software

Whether it's a pump station or substation, Powerlink is highly flexible SCADA software designed specifically for telemetry applications. Operators can use Aspex™ HMI or a graphical package from other suppliers. Alarms, Paging and Reporting provide a fully featured system designed specifically for the Utilities industry [power, water and wastewater].

REPORTS

- Flexible report creation by I/O, RTU, Alarm Action
- Report scheduler for automated operation
- Formatted reports print directly to printer
- Report output as CSV or SQL format
- RTU datalogged file reporting

PROGRAMS

- Create programs online in realtime
- Run programs at the SCADA Master or RTUs
- Programming language uses simple English statements
- Self-documenting programming language
- Logic for simple programs allows operation autonomous of the SCADA Master
- Specific to telemetry instructions
- Combine telemetry and data management instructions in programs
- Full comparison and action operators (incl bit-wise)

Aspex

REPORTS	POWERLINK TELEMETRY SERVER (CORE)	ALARMS
PROGRAMS		COMMS

CORE

- I/O Database & configuration
- Communications channel configuration
- Input conditioning & filtering
- Status, Measurements, Control Outputs, Analog Outputs, Pulse counts & rates
- Interface with Aspex HMI or other HMI with OPC Server

- Data retrieved from remote sites is stored in a readily accessible 13 month file. Older data is archived for later reference
- Data output to SQL Database (option)
- Log File records system actions, e.g. changes to setpoints, for Audit purposes
- Secure password-protected operations and changes

ALARMS

- Alarm on exceeding a set point limit or change of state at the remote
- 40 custom Alarm Actions
- Create a custom Alarm hierarchy
- Inbuilt paging s/w with multiple groups
- TXT alarms to cellphones
- GSM/CDMA modem support for alarm acknowledgment from cellphones
- WebAlarm website to view site status & analogs
- Working hours Alarm Management

COMMUNICATIONS

- Connect to PLCs & RTUs from different manufacturers; Abbey Systems, Q'tech Datran, Dataterm, Rockwell and those using Modbus RTU protocols
- IP, VHF, UHF, WiFi, Cellular, 2w/4w line options
- Communications Protocols; HDLC, DNP3, Modbus, Conitel 2020/2025, DNP3/IP HDLC/IP + others
- Download programs over the communications channel
- Retrieve time stamped datalogged files over the communications channel or with a laptop PC

www.abbey.co.nz

INNOVATORS IN REMOTE CONTROL TECHNOLOGY

µ Abbey
S Y S T E M S

SPECIFICATIONS

- Operating system: MS WinXPP
- Single Server, Hot Standby, Multi Master architectures, Dial-In and VPN options
- Single OPC Server or Multiport OPC Server to HMI
- Optional modules: Alarms, Paging, Reporting, Datalogging, export to ODBC/SQL database
- Applications program suites:
  - Power Networks - Load Management System
  - Water Utilities - Pump Station Operations

COMMUNICATIONS PROTOCOLS

Abbey Systems uses a number of different communications protocols in a network depending onwhich is most appropriate for the application.

These include; DNP3 Master, DNP3 Slave, DNP3/IP, Modbus Master, Modbus/IP, HDLC, HDLC/IP and others.

FEATURES OF HDLC

Very Secure	- There are no lost or duplicated messages
Synchronous	- Better in noisy areas as the data stream can be aligned with the modem frequencies, giving no induced harmonics
Packetised	- Better error recovery
Special Functions	- Parameter downloads to configure the RTU or program it remotely
	Retrieval of datalogged files
Standards	- Conforms to ANSI T1.618

DATALOGGING

- Receives, stores and manages files created at the RTU and transmitted to the Master at convenient times
- Files contain time stamped events and measurement values collected at the remote site and stored in non volatile memory
- Data from these files can be displayed in Aspex Advanced Trends *
- Queries can be exported in CSV format to spreadsheets and other databases *

requires Aspex or Programming software

SCADA Software	Telemetry server	Full	Standard	Lite	Superlite	Local Operator
Aspex	n	y	y	y	y	y
Advanced Trends	n	y	y	y	y	y
Edit HMI screens	n	y	y	y	y	y
Powerlink Telemetry Server	y	y	y	y	y	y
Alarms	y	y	y	y	y	y
I/O setup	y	y	y	y	y	y
Comms	y	y	y	y	y	n
Alarm system	y	y	y	y	y	y
# RTUs	100	100	100	25	5	1
Max # of RTUs	400	400	200	25	5	1
OPC Server interface to other SCADA s/w	y	n	n	n	n	-
Programs	250	500	250	100	25	100
Reports	n	y	y	y	y	-
- Scheduler	n	y	y	y	y	-
Paging	n	y	y	y	y	-
HDLC Communications Protocol (ASL products)	y	y	y	y	y	y
Software Support Contract updates	y	y	y	y	y	y
Optional Software Modules						
Aspex software	y	-	-	-	-	-
Reports	y	-	-	-	-	-
Paging (required for SMS Alarm/Ack fn)	y	-	-	-	-	-
Multiport OPC Server licences	y	y	y	n	n	-
SMS Alarm/Acks modem and software	y	y	y	y	y	-
WebAlarm	y	y	y	y	y	-
Datalogging	y	y	y	y	y	n
Extra RTU numbers	y	y	y	y	y	-
Extra Aspex Dial In or LAN licences	n	y	y	y	y	-
SQL/ODBC export software module	y	y	y	y	n	-
Extra programs	y	y	y	y	n	y
DNP3 Master, Modbus Master comms protocol	y	y	y	y	n	n
RTU Protocol Drivers, DNP3, Modbus, DF-1, Datran	y	y	y	y	y	n
Serial Protocols at the RTU; DNP3, Modbus, DF-1	y	y	y	y	y	n
Hot Standby PC c/o hardware and software	y	y	y	y	y	n
Multi Master	y	y	y	n	n	n
Load Management System - Suite of programs	y	y	n	n	n	n
Pump Station Operations - Suite of programs	y	y	y	y	y	y

REMOTE PROGRAMMING OF RTUS

When customers use the HDLC communications protocol logic programs can be written, downloaded and debugged online and in realtime to the RTUs.