Reliable, Easy to Use SCADA Solutions:

Water/Wastewater
Oil & Gas
Electric Power

ICL Industrial Control Links, Inc.

For over 26 years, Industrial Control Links, Inc. has been developing innovative products for building reliable, easy-to-use SCADA Systems.

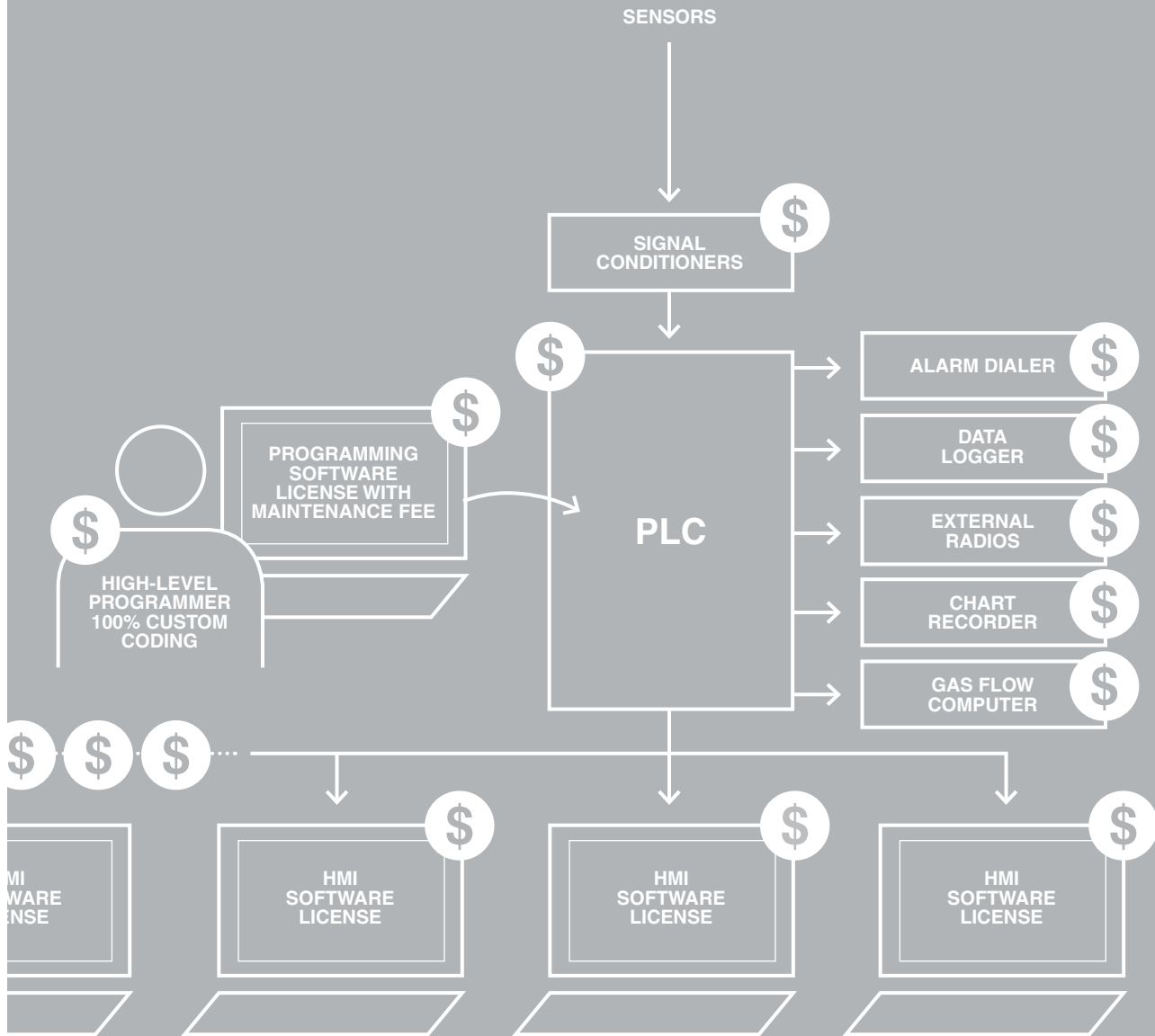# Innovative SCADA solutions for higher productivity and extreme reliability.

Industrial Control Links was founded in 1986 and began operations in the San Francisco Bay Area as an electronics research and development firm. In 1992, the company relocated to Auburn, California, just east of Sacramento, to develop a more cost-competitive product manufacturing capability. In 1998, Industrial Control Links built the modern 23,000 square foot manufacturing facility and corporate headquarters.

Industrial Control Links, Inc. is a time-proven source for high-reliability control and data communications equipment. Our software tools provide some of the most integrated and easy-to-use solutions for monitoring, data collection and control, including the latest technology that exploits the accessibility and cost savings of the Internet.

ICL's hardware products provide optimum levels of reliability, supporting extra-wide temperature ranges (all products undergo a 100% extended temperature burn-in), highly protected field I/O and communications interfaces, and an industry leading 3-year warranty.

www.iclinks.com

The Old Piecemeal Way

SENSORS

SIGNAL CONDITIONERS

$

$

PLC

$

PROGRAMMING SOFTWARE LICENSE WITH MAINTENANCE FEE

$

HIGH-LEVEL PROGRAMMER 100% CUSTOM CODING

$

ALARM DIALER $

DATA LOGGER $

EXTERNAL RADIOS $

CHART RECORDER $

GAS FLOW COMPUTER $

$ $ $ ....

HMI SOFTWARE LICENSE

HMI SOFTWARE LICENSE $

HMI SOFTWARE LICENSE $

HMI SOFTWARE LICENSE $

$ LIFETIME YEARLY LICENSE & MAINTENANCE FEES

The Integrated ICL Way

SENSORS

$

CONTROLLER/ RTU

SIGNAL CONDITIONING

ALARMING
(TELEPHONE/SMS/E-MAIL)

DATA LOGGING

HISTORICAL TRENDING

INTERNAL RADIO

HMIs

GAS FLOW

PROGRAMMABLE LOGIC

ICL COMES WITH ALL COMPONENTS BUILT IN

HMI BUILT IN NO LICENSE!

SCADAWORKS DEVELOPMENT ENVIRONMENT COMES WITH 10-SEAT LICENSE. NO MAINTENANCE FEES.

COMMON SCADA FUNCTIONS CONFIGURED WITHOUT PROGRAMMING

$

SCADAWORKS

Features & Benefits

Networking
More Than Register Access

Pinnacle Series SCADA controllers and Sentry/Ascent RTUs and I/O modules come with Ethernet built in, providing: a high-speed means of configuration and back-up, ability to transfer information and files, lively animated HMI displays, and a way to send out alarms. ICL products support one of the largest selections of industry standard network protocols including Modbus, Ethernet IP, DNP 3 and the newest high security protocols like SDX to ensure open connectivity to many devices, whether ours or from a third party.

In addition, support for standard high-speed protocols makes it is easy to transfer files, display web pages, use your cell phone or tablet computer as an HMI, and send e-mails (with attachments!) or text messages.

Modbus TCPIP/UDP	(Master and Slave)
DNP3	(Master and Slave)
Ethernet IP	(Master and Slave)
SDX	(Master and Slave) (Encrypted Secure Data Exchange)
HTTP	(Web Server)
FTP	(File Transfer)
Telnet	(Simple Text HMI)
E-Mail	(Alarms and Reports with Log Attachments!)

Benefits

- Connectivity with nearly any SCADA device, PLC or Process Control Instrument

- "Glue together" third party devices without protocol converters

- Choose the best device for the job. We can talk to it!

Serial Communications
### Still the SCADA Standard

Although Ethernet is rapidly gaining popularity, many SCADA systems still use some form of serial communications. ICL SCADA controllers and RTUs support internal spread spectrum radios and telephone modems, as well as external radios, cellular modems, leased line modems, HMI terminals and other serial devices. ICL SCADA controllers and RTUs have conventional RS-232 and RS-485 ports to support legacy serial hardware, and Pinnacle SCADA Controllers have USB 2.0 (Universal Serial Bus) ports.

Modbus RTU	(Master and Slave)
Modbus ASCII	(Master and Slave)
DF1	(Master and Slave)
DNP3	(Master and Slave/Outstation)
DFA OpenLink	(Master and Slave)
NMEA 12	(GPS)
HART	(Master)
SMS	(Text Messaging)

as well as standard Internet protocols running over a serial PPP link: FTP, E-mail, and Virtual Serial Port bridging.

Benefits

- Connectivity with nearly any SCADA device, PLC or Process Control Instrument

- "Glue together" third party devices without protocol converters

- Upgrade older systems without complete replacement

- Choose the best device for the job. We can talk to it!

Built-in Ethernet Networking

Many Protocols Built in for Easy Connectivity
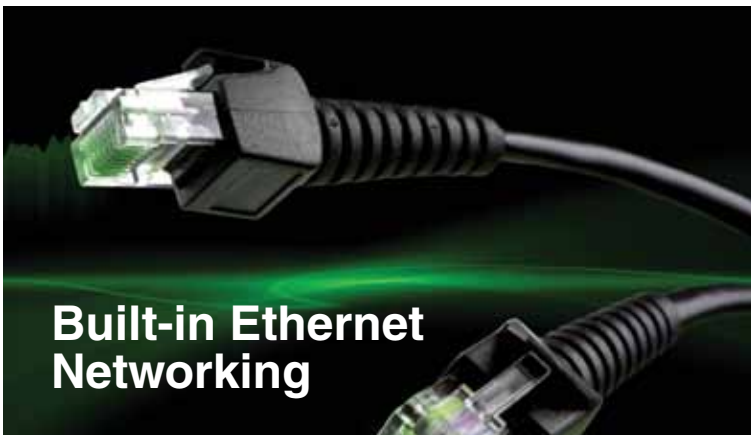
Gas Flow Calculation
Built-in Flow Computers in Every Pinnacle SCADA Controller

Pinnacle SCADA controllers can perform natural gas flow calculations based on the standards set by the American Gas Association (AGA). The calculations supported include AGA-3, AGA-7 and AGA-8. The controllers also support the requirements of API 21-1 and the Canadian ERCB Directive 17 which relate to accuracy, logging and journaling, and calibration. Unlike competitive devices, the gas flow calculations are included as a standard part of ScadaWorks at no additional charge. A Pinnacle controller can support more than 10 simultaneous gas flow runs. Register assignments are flexible, enabling a Pinnacle controller to "look" like a drop-in replacement for older equipment without impacting your software investment. With their large internal storage capacity, Pinnacle controllers provide immediate access to much more than the 35 days production requirements with high-resolution trending, extended production totals, and access to years of calibration records. A simple web browser is the only software that your technicians need for calibration and data access; no special software programs!

AGA-3	Gas Flow using Orifice Plates
AGA-7	Gas Flow using Turbine Sensors
AGA-8	Gas Compressability Compensation

Benefits

- Easy to use—no special software to load on your PC or laptop

- Upgrade older systems without complete replacement

- Powerful programmable control and data logging tools— avoid FST nightmares!

- Reduce complexity with a more reliable, fully integrated solution

Data Logging
Recording of Data, Events and Alarms

ICL Controllers include data logging to a local built-in flash disk; Pinnacle SCADA controllers (with 512MB to 2GB), and Sentry RTUs (with 32MB). Data can be stored in a variety of formats compatible with your existing software (usually CSV, XML, or your own). Pinnacle SCADA Controllers can also record or transfer data to USB storage devices.

CSV	Directly compatible with spreadsheet programs and older databases
XML	Standard data formatting for modern databases
Freeform	EASY formatting for non-standard software and user reports
Web Tables	See your data in tabular form on auto-generated web pages
Items Logged	Pinnacle: up to 65,000 variables Sentry: up to 4 totals +16 variables
Sample Rate	Pinnacle: down to 10mS per sample, Sentry: 1 second

Benefits

- Security—don't lose any data when communications goes down

- Works with the software that you have now

- Field troubleshoot with data that shows what caused a problem

- Get immediate production information in the field without complex access schemes to a master HMI computer

- Get complete field information to improve processes.

- Automatically receive the historical source data with controller e-mails and reports

- Save money—replace separate data loggers and chart recorders for no extra cost

- Save money—avoid buying expensive HMI trending software

A Pinnacle controller can support more than 10 simultaneous gas flow runs.

Large Data Logging Capacity Built In

Features & Benefits Continued

Historical Trending
Looking Back at What Happened

ICL SCADA Controllers and RTUs include historical trending
to a built-in flash disk; Pinnacle SCADA controllers (512MB to
2GB), and Sentry RTUs (32MB), recording years of historical
data. The built-in web server displays trends as tables or graphs.
Automatically generated web pages display realtime "strip charts",
or specific date and time ranges in "historical" mode. Data can be
retrieved in a variety of file formats, compatible with your existing
spreadsheet or database software (usually CSV or XML format).
Pinnacle SCADA Controllers can also transfer trended data to
USB storage devices such as memory "sticks."

Graphical:

Traces	Pinnacle: 64 per chart, unlimited charts
	Sentry: 16 per chart, 1 chart
Sample Rate	1 second

Web Tables: See your data in tabular form on auto-generated web pages

Benefits

- Security—don't lose any data when communications goes down
- Works with the software that you have now
- Field troubleshoot with data that shows what lead up to a problem
- Get immediate production information in the field without complex access schemes to a master HMI computer
- Get complete field information to improve processes.
- Automatically receive the historical source data with controller e-mails and reports
- Save money—replace separate data loggers and chart recorders for no extra cost
- Save money—avoid buying expensive HMI trending software

Alarm Notification
Quickly Knowing What's Gone Wrong

ICL SCADA Controllers and RTUs provide alarm management,
tracking the three states of alarms (Idle, Active- Not
Acknowledged, and Active- Acknowledged) for discrete inputs
and analog levels.

Alarms are annunciated by voice or e-mail (Pinnacle), HMI
panel (Viewpoint II), text message or digital contacts. Alarms
can be sent out multiple ways for the same alarm. Alarms are
acknowledged by access to a web page, HMI panel, a local
pushbutton, or a text message.

Alarm Types	Synthesized Voice (Pinnacle)
	E-mail (Pinnacle)
	Text Message
	HMI Panel
	Digital Outputs
Alarm Points	Pinnacle: unlimited
	Sentry: 30 to 40 (depending on model), including analog/discrete levels and communication failures
Alarm Display:	Auto-configured web page, HMI panel, or SMS message

Benefits

- Save money—avoid purchasing separate alarm dialers
- Eliminate I/O connections—gather external alarm information by communications (e.g. from PLCs)
- Use cell phones for alarm notification by text message or voice
- Get immediate alarm information in the field without complex access schemes to a master HMI computer

Built-in Long-term Historical Trending

Versatile Alarm Management and Monitoring

HMIs
Human Machine Interfaces

ICL SCADA Controllers and RTUs support a variety of HMIs (Human Machine Interfaces) that take advantage of the available media (e.g. Ethernet, telephone, cellular) to provide easy-to-configure and easy-to-use means for a user to view operating statuses and values, and adjusting setpoints. The HMIs are integrated with the alarming functions for viewing and acknowledging alarms. No programming is needed—just simple fill-in-the-blanks configuration. Configuration time and changes are reduced to seconds or a few minutes. All Interfaces offer the ability to enforce user access controls and permissions to balance between easy user access and system protection.

HiBEAM—Full graphical interface with animation—Comes with standard symbol graphical library, or create your own. Works with standard web browsers (Pinnacle)

Web Portal—Simple non-animated interface—auto-generated from register tag list—works with standard web browsers

Text User Interface—Non-web based text-only interface—ideal for Viewpoint HMI panels and the Pinnacle local display. Also supports serial (VT100) and Ethernet (Telnet) terminals

Voice—Synthesized voice messages in selectable languages. Interactive when using a touch-tone phone (Pinnacle)

Text Message—Interactive texting (SMS) interface over cellular networks. Includes alarm status lists and alarm acknowledgment

Benefits

- Save money—avoid purchasing third party HMI panels and PC software

- Save money—no per set installation or licensing costs— HMI software comes included, with no distribution limitations

- Simple setup—all the tags and data are already there— no importing and exporting

- Superior remote support—HMIs are part of the controller program. Updating is simply a remote program download— avoid field trips

None of our HMIs require any programming; just simple fill-in-the-blanks configuration.
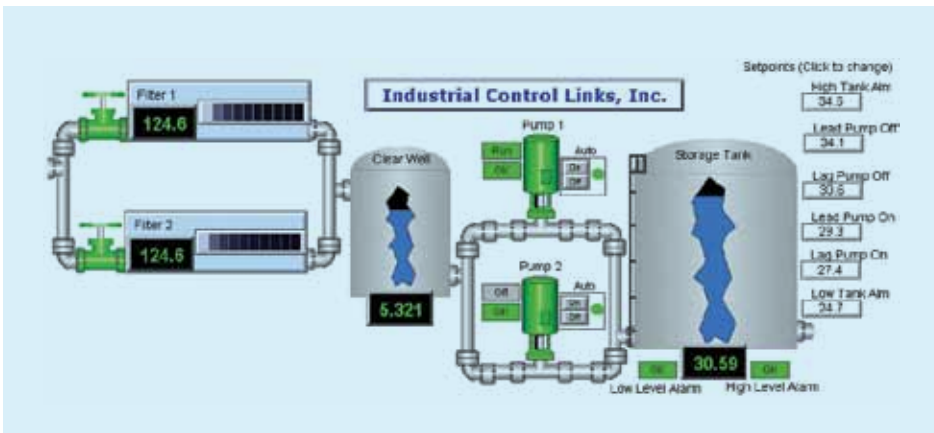
Features & Benefits Continued

Programmable Logic (Pinnacles)
IEC-61131 and C/C++

ICL SCADA Controllers are fully programmable, including all
5 IEC-61131 standard languages as well as C/C++ programming.
If you need to implement custom control strategies, protocols,
alarm management or logging routines, you have the full power
of a high-end programmable controller. Create your own custom
function blocks using the rich supplied library including PID
control, non-linear scaling and averaging, pump alternation, etc.
All function blocks work in all languages and support 32 and 64-bit
floating point math and strings. Includes up to 65,535 tags.

Ladder Logic—Most common control language in the North
America. Full graphical display of your control operation

Func Block Diag—Flexible function block programming combined
with ladder logic components

Structured Text—Textual language that's easiest for formulas

Seq.Func. Chart—Best language for batch process

Instruction List—Very low-level language, like machine
assembly language

C/C++—Favorite of "hardcore" programmers

Benefits

- Save money—avoid purchasing separate programmable logic
controllers or process/multi-loop controllers

- No hidden charges—no artificial per unit tag limits, user fees,
dongles, keys, or maintenance fees—software is the complete
full version, with 10 computer registrations

- All project documents available all the time—keep source code
and full program documentation and project documents stored
on the local flash disk with or without security protection. Don't
waste hours of travel only to discover a missing program or file

Security
Making Your System and Data Secure

ICL SCADA Controllers and RTUs provide the latest security
technology in order to protect your systems and data exchanges.
Extreme attention has been paid to security and data integrity,
from the lowest level software components used, to access
controls and logging, to communications encryptions; ICL SCADA
Controllers and RTUs are equipped to address the realities faced
by modern day control systems.

Embedded System—ICL products use a dedicated non-
consumer embedded operating systems, not an adaptation of
Windows or Linux. The malware and viruses that attack these
other operating systems are powerless against the commercial
embedded operating systems built into ICL products.

Serial # Linking—The source programming code in Pinnacle
SCADA controllers is linked to a specific product serial number
to avoid unauthorized access and changes.

Encryption—ICL products offer AES-128 encrypted
communications to secure message traffic. This is the same
encryption used by the National Security Agency. Encryption is
available for serial and Ethernet/Internet communications and
built into SMS data messaging.

Access Manager—ICL products provide a secure access
manager that enables a system administrator to designate the
types and program areas of access permitted for each user.
Every user must log in with a secure username and password.

Benefits

- Less vulnerable—safer embedded operating systems

- Encrypted communications—ensure proper receipt and integrity

- Tamper resistant—controlled access with user specific
permissions

Powerful Programming Tools
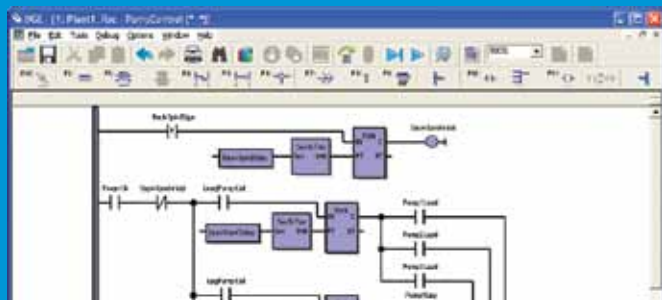
Safeguard Access & Data

Quality is Everything:

ICL Products have . . .

- Extended Temperature Designs and Components for Superior Reliability

- Class 1 Div 2 Hazardous Location ratings on most products

- Military grade coatings inside for protection

- Gold plating on circuit boards and connectors for harsh environments

- Built-in Transient and Surge Protection

- Self resetting fuse protection on analog inputs

- Kilovolt isolation on digital inputs

- Tough Powder Coating over zinc plating on metal enclosures

- An industry-leading 3-year warranty

- Traceable testing and calibration

Products

Programmable Controllers

RTUs
(Ethernet/Serial/Wireless)

Pinnacle Series Controllers

Pinnacle Series Programmable SCADA Controllers combine performance, reliability and value. With four different models ranging from 18 to 200+ I/O points, 2 or 4 USB ports, up to 5 serial ports, and internal radios/modems, there's a Pinnacle controller that's just right for nearly any SCADA application. Use serial or Ethernet I/O for even larger I/O configurations (Sentry/Ascent for Ethernet & Serial, PicoBrick & MicroBrick for serial only!)

Sentry Series RTUs

Sentry RTUs are smart yet economical, making them perfect for monitoring, remote control, data logging and alarming. They include smart configurable signal conditioning, multiple industry standard protocols, encrypted data transfers, I/O mirroring, a web HMI, production totalization, several years of data logging and trending, a built-in pump controller, and energy calculations. They support a variety of internal radio options as well as an optional cellular, text messaging, secure data transfer, alarming and HMI capability. Configuration is by simple web browser and fill-in the-blanks web pages—no special software.

Pinnacle Controllers include:

1 ETHERNET PORT
300MHZ, 32-BIT CPU
128 MB RAM
512MB FLASH DISK (1TB/2TB OPTIONAL)

Sentry RTUs include:

1 ETHERNET PORT
32MB FLASH DISK
INTERNAL RS-232/485 OPTION
INTERNAL RADIO/CELL MODEM OPTION

Lassen

COMPACT CHASSIS

18 I/O POINTS
(3AI, 2AO, 6DI, 6DIO, 1MAG)

3 SERIAL PORTS
2 USB

INTERNAL RADIO OPTIONS
INTERNAL MODEM OPTION

Rubicon

COMPACT CHASSIS

37 I/O POINTS
(4AI, 2AO, 20DI, 10DO, 1 MAG)

3 SERIAL PORTS
2 USB

Sprite II

12 I/O POINTS
(2 AI, 2 AO, 4 DI, 4 DO)

SMART LOOP POWER FOR ANALOG INPUTS

Solaris II

SOLAR

10 I/O POINTS
(2 AI, 8 DIO)

BUILT-IN SOLAR CONTROLLER/UPS
SMART LOOP POWER FOR ANALOG INPUTS

Spectra

SOLAR

8 I/O POINTS
(6 AI, 2 DIO)

BUILT-IN SOLAR CONTROLLER/UPS
SMART LOOP POWER FOR ANALOG INPUTS

Stratus

12 I/O POINTS
(6 AO, 6 DIO)

Shasta

2 SIZES (SHORT OR TALL CHASSIS)

UP TO 100+ I/O
BASE CONFIG.: 46 I/O POINTS
(9AI, 2AO, 16DI, 6DO, 2DIO, 1 MAG)

3 SERIAL PORTS
2 USB

INTERNAL MODEM OPTION

Everest

2 SIZES (SHORT OR TALL CHASSIS)

UP TO 200+ I/O
BASE CONFIG.: 50 I/O POINTS
(9AI, 4AO, 20DI, 12DO, 4DIO, 1 MAG)

5 SERIAL PORTS
4 USB

INTERNAL RADIO OPTION
INTERNAL MODEM OPTION

Spirit

6 I/O POINTS
(4 ISOLATED AI, 2 DIO)

I/O Expansion

(Ethernet/Serial/Wireless)

Ascent I/O Modules

Ascent I/O modules extend the I/O capacity of Pinnacle SCADA controllers, or can be interconnected to form wireless or Ethernet/ RS-485 "mirrored" I/O systems. Ascent I/O modules have independent Ethernet and RS-232/RS-485 serial ports and an optional internal radio. Universal Inputs provide direct sensor conditioning for milliamps, volts, millivolts, ohms, thermocouples, RTDs, and thermistors. They also include configurable signal conditioning and totalizers (for flow). Digital inputs include configurable filtering, non-volatile totalizers, runtime meters and rate calculations. Digital outputs have programmable pulse and duty cycle modes. A built-in HMI shows input levels, totals, I/O and communications status, and supports local I/O forcing for system troubleshooting. Configuration such as signal conditioning, scaling and communications settings are done through simple web pages.

I/O Expansion

(Serial)

PicoBrick & MicroBrick

PicoBricks and MicroBricks are small I/O blocks for expanding controller I/O capacity, or providing point-to-point I/O mirroring over radio links, modems, or twisted pair lines. Each module has a RS-232/RS-485 port. The modules include signal conditioning, support for multiple industry standard protocols (including Modbus and DF1), I/O mirroring, totalization, and rate monitoring. MicroBricks have a small built-in HMI for viewing and forcing levels and states, and communications configuration. Fill-in the-blanks configuration is done using a free Windows tool.

Ascent I/O Modules include:

1 ETHERNET PORT
1 RS-232/485 PORT
HMI DISPLAY
STORE & FORWARD REPEATING
DUAL I/O AND COMM WATCHDOG TIMERS
OPTIONAL INTERNAL RADIO

PicoBricks & MicroBricks include:

1 RS-232/485 PORT
LED HMI DISPLAY (MICROBRICK)
LED I/O AND STATUS INDICATORS
STORE & FORWARD REPEATING
DUAL I/O AND COMM WATCHDOG TIMERS

Ascent Combo

8 UI
8 AO
10 DI
10 DO (RELAY)

Ascent UI-32

32 UI

Ascent DI-44

44 DI

Ascent DIO 22/22

22 DI
22 DO (RELAY)

PicoBricks

AVAILABLE MODELS

DI12: 12 DI (12/24 OR 120V)

DO12: 12 DO (FET)

DIO6/6: 6 DI (12/24 OR 120V), 6 DO (FET)

AI8-20MA: 8 AI (20MA)

AI8-5V: 8 AI (5V)

AO6-20MA: 6 AO (20MA)

AO8-10V: 8 AO (10V)

AO8-1MA: 8 AO (1 MA)

COMBO: 3 AI (5V/20MA),
3 DI (12/24 OR 120V), 2 DO (FET)

MicroBricks

AVAILABLE MODELS

DI32: 32 DI (12/24 OR 120V)

DO12: 32 DO (FET)

DO16-RLY: 16 DO (RELAY)

DIO16/16: 16 DI (12/24 OR 120V),
16 DO (FET)

AI16: 16 AI (5V/20MA)

AIO8/8: 8 AI (5V/MV/20MA), 8 AO (20MA)

UI12: 12 UI (5V, MV, MA, OHMS,
THERMOCOUPLES, RTDS, THERMISTORS)

UI8I: 8 UI ISOLATED (5V, MV, MA, OHMS,
THERMOCOUPLES, RTDS, THERMISTORS)

COMBO: 6 AI (5V/20MA), 10
DI (12/24 OR 120V), 4 DO (FET)

Radios, Modems, Routers and Switches

Many Options for Reliable SCADA Communications

Industrial Control Links offers a very wide range of devices for both wired and wireless communications. These radios, modems, switches and routers supplement and compliment the built-in communications capabilities of ICL SCADA controllers and RTUs. Wireless antenna system components, communications engineering and support services, and radio path surveys are also available.

Messenger Spread Spectrum Radios

1 WATT
900MHZ AND 2.4GHZ
UP TO 230K BAUD

RS-232, RS-485 AND USB

SUPPORT FOR
MAXSTREAM/DIGI
FREEWAVE
MICROHARD

Messenger RMX Radio/ Leased-line Modem

LEASED LINE AND DATA OVER AUDIO RADIO, UP TO 4800 BAUD

BELL 202 COMPATIBLE AVAILABLE

AUTOMATIC LEVEL CONTROL PACKETIZING AND ERROR CHECKING OPTIONAL ENCRYPTION

Raveon Series VHF, UHF & MURS Radios

5 WATTS
UP TO 9600 BAUD

RS-232, RS-485, AND USB

PROGRAMMABLE FREQUENCY AND POWER OVER THE NETWORK DIAGNOSTICS SUPER LOW-POWER SLEEP MODE

Messenger Cellular Data Modem

GSM/GPRS AND CDMA

DATA AND TEXT MESSAGE SUPPORT

RS-232 AND USB INTERFACES

Cellular Router

GSM/HSPA, CDMA/EV-DO

AT&T, T-MOBILE, VERIZON, SPRINT, MOST OTHER CARRIERS

HIGH-SPEED—UP TO 3.1 MBPS

ETHERNET, USB AND RS-232

BUILT-IN DHCP SERVER AND PORT FORWARDING SUPPORT

Messenger Voice/Dialup Telephone Modem

ADD VOICE ALARMING AND VOICE ACCESS TO PINNACLE CONTROLLERS

ADD INTERNET ACCESS IN VERY REMOTE LOCATIONS

HIGH-SPEED—DATA TRANSMISSIONS TO 56KB/SECOND

Messenger Ethernet Switch

5 ETHERNET PORTS

AUTO SPEED, AND POLARITY CORRECTION (MDX/MDI-X)

INDIVIDUAL LINK INDICATORS

NO MANAGEMENT REQUIRED

Industrial Control Links, Inc.

HMI Panels

Local, Always Ready Access to Your Process and Setpoints

Industrial Control Links Viewpoint HMI (Human Machine Interface) panels offer a quick and easy means of displaying process information, optionally changing control setpoints, and viewing/acknowledging alarms. There are two models. The larger Viewpoint II is designed to mount on the front face of an electrical panel. Viewpoint Express is designed for simple low-cost installation in an electrical outlet box. Both panels require no programming, taking advantage of the simple fill-in-the-blanks configuration tools of ICL SCADA Controllers and RTUs. Both units are low-voltage DC powered.

Power Supplies

Stable and Reliable

ICL power supplies operate over extended temperature ranges and under harsh conditions, complimenting ICL's Programmable SCADA controllers and RTUs. 12 volt and 24 volt versions are available. All ICL power supplies accept 110Vac and 220Vac line input power, automatically adjusting to the power input. Some also accept 125/250Vdc input power favored by power utilities. Power supplies below marked with the orange battery symbol support battery backup. These power supplies charge and maintain a charge on a "gell-cell" battery and automatically power the controller and RTUs if power is lost. These power supplies have two output current/power ratings. When a battery is used, a portion of the power supplies output power is required to charge the battery.

Viewpoint II

3.75" GRAPHICAL BACKLIT DISPLAY

UP TO 16 LINES OF 40 CHARACTERS, SCALABLE FONTS

5 CONFIGURABLE FUNCTION KEYS W/LEDS

AUDIBLE BEEPER

ETHERNET AND USB INTERFACES (USB CAN POWER HMI)

AES ENCRYPTION SUPPORT

SUPPORTS ACCESS TO MULTIPLE CONTROLLERS AND RTUS OVER ETHERNET

Viewpoint Express

GRAPHICAL BACKLIT DISPLAY— SAME AS BUILT INTO PINNACLES

UP TO 4 LINES OF 20 CHARACTERS, SCALABLE FONTS

AES ENCRYPTION SUPPORT

ETHERNET INTERFACE

THOR Battery Backed DC Power Supply

12V, 24V AND 12/24V MODELS

100W OUTPUT RATING W/O BATTERY 60W OUTPUT RATING WITH BATTERY (SEE MANUAL)

12/24V MODEL USES ONLY ONE 12V BATTERY

POWER FAIL, LOW BATTERY AND FAULT RELAY OUTPUTS

120/240VAC OR 125/250VDC INPUT POWER -20˚C TO +70˚C

ECO-60 DC Power Supply

12V AND 24V MODELS

60W OUTPUT POWER (SEE MANUAL)

CONTACT FACTORY FOR OTHER OUTPUT RATINGS

POWER FAIL RELAY OUTPUT

120/240VAC OR 125/250VDC INPUT POWER -20˚C TO +70˚C

Our Hardware Products:

- **Undergo a 100% extended temperature burn-in**
- **Use highly protected field I/O and communications interfaces**
- **Come with an industry-leading 3-year warranty**

ScadaFlex DC Power Supply

12V AND 24V MODELS

40W OUTPUT POWER (SEE MANUAL)

-40˚C TO +70˚C

ScadaFlex Battery Backed DC Power Supply

12V AND 24V MODELS

40W OUTPUT RATING W/O BATTERY 30W OUTPUT RATING WITH BATTERY (SEE MANUAL)

24V MODEL USES TWO 12V BATTERIES

POWER FAIL AND LOW BATTERY RELAY OUTPUTS

-40˚C TO +70˚C

For Additional Product Information Visit www.iclinks.com

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www.iclinks.com