

Comli I/O Driver (Direct, Called and Swedmeter versions)

SCC

DRIVER TYPES

	COMM	RES	CFE	ACE
DOS	4.23-5		4.23-5	
WIN	5.31-6		4.23-7	
NT	6.00-21			
WIN2000	6.00-21			
WIN XP	6.00-21			

SUPPORTED HARDWARE

SattCon 05
 SattCon 15
 SattCon 35
 SattCon 31
 SattCon 200
 Satt Control OP45
 Swedmeter in the version with Swedmeter support

PROTOCOL

Direct Link	X
Multi-drop	X
Communication Network	

Baud Rate, Parity, Stop Bits, Data Bits: User Definable.
 Support for 256 Devices per serial link.

Up to 8 serial ports are supported through DigiBoard or RIC card.

SUPPORTED MESSAGES/DATA AREAS

Read/Write Registers
 Read/Write Registers over 3071 from driver versions 5.31-4 and 6.00-8.
 Read/Write Digitals
 Read/Write P word
 Read/Write Analogs
 Read/Write Controllers (Static)
 Read/Write Floating Point Registers
 Read/Write Timers
 Read/Write Limiters
 From V423-6 Set PLC's real time clock via the background program SCCTIME.EXE
 From V423-6 Read time stamped events

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2002-03-07



From V531-2 Get called alarms
From V531-2 Get called history

only in called version.
only in called version via the background program
SCCHIST.EXE.

From V531-2 Get called Swedmeter alarms
From V531-2 Get called Swedmeter history

only in called version with Swedmeter support.
only in called version with Swedmeter support via the
background program SCCHIST.EXE.

MANUAL

DEMO

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DATA TYPES

ANALOG	12 bit analog input extended to 16 bit. 8 bit analog output
CONTROLLER	25 words static controller
DIGITAL	Read 16 at a time, written 1 bit at a time
FLOAT_REG	32 bit IEEE floating point
MIRROR_FLOAT	32 bit IEEE floating point (4 received float bytes in reverse order)
LIMITER	10 byte data represented as 30 byte text
TIMER	32 bit unsigned integer in 10th of seconds
REGISTER	16 bit unsigned integer
DATE_TIME	Send date and time in 12 characters
TS_EVENT	Get 6 time stamped digital events in 60 bytes
ALARMS	Used to get called alarms in called version
HISTORY	Used to get history in called version
SWEDHIS	Used to get Swedmeter history in called version with Swedmeter support

REQUIRED VENDOR SOFTWARE

To get time stamped events from the PLC, the PLC must be set up to generate time stamped events.

To be able to get called alarms and history the PLC must contain a program that follows the alarm and history specification from Novotek.

SIGNAL CONDITIONING

NONE	No Signal Conditioning
LIN	16 Bit Binary Scaled to EGU
12BN	12 Bit Binary No Range Check
12AL	12 Bit Binary Range Check
15BN	15 Bit Binary No Range Check
15AL	15 Bit Binary Range Check
3BCD	3 Digit Binary Coded Decimal
4BCD	4 Digit Binary Coded Decimal
AO8H	Takes the raw high byte 8bit value from a 16-bit value without scaling and sends it to an 8 bit Analog Output. No range check alarms.
R12L	No scaling of the raw 12 least significant bits.
6HI	Scales the 6 least significant bits bits in the most significant byte (bit 8 - 13) to an EGU value.
R6HI	Takes the 6 least significant bits in the most significant byte (bit 8 - 13) without scaling.
6LO	Scales 6 least significant bits in the least significant byte (bit 0 -5) to an EGU value.
R6LO	Takes the 6 least significant bits in the least significant byte (bit 0 - 5) without scaling.
8HI	Scales the raw high byte 8 bit to an EGU value.
R8HI	Takes the raw high byte 8 bit value without scaling.
8LO	Scales the raw low byte 8 bit value to an EGU value
R8LO	Takes the raw low byte 8 bit value without scaling.
CTRL	Takes the two most significant bits without scaling. Used to represent the type of static controller. (0=P, 1=PD, 2=PID)

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ADDR	Takes the 12 least significant bits to represent an address according to the 4 most significant bits.
4MST	Takes the 4 most significant bits in a word without scaling.

The signal conditionings 12L - 4MST are used together with type CONTROLLER.

The signal conditionings LIN - 4BCD are used together with type REGISTER.

COMMUNICATIONS PERFORMANCE

The protocol is a serial binary protocol. It can read maximally 32 data words from a data block in one message. The 32 words can be any kind of information. The driver expects all data within one message to be of the same data type. At 9600 baud can 3-4 messages containing 32 words be fetched per serial link. This can be, when getting 3 messages/second, $3 \cdot 32 = 96$ analog values or $3 \cdot 32 \cdot 16 = 1536$ digital signals.

GENERAL LIMITATIONS

It is only the programmed time for timers that can be defined and requested with the data type TIMER.

To set the real time clock in the PLC with the data type DATE_TIME you must use a background program SCCTIME.EXE.

The digital points in the PLC that will generate time stamped events must in V423-7 and lower be defined in a address range of 285 points and in V5.31-1 and higher in a range of 2048 points. The driver can handle up to three time stamped events from the same point in one message. If there are more than three time stamped events from the same point in one message the driver will get the latest value from the point.

COMMENTS

The I/O type DATE_TIME is strictly used for output that's why the Poll time must be disabled.

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The driver supports the RDA (Remote Digital Alarm) database block for the ALARMS and TS_EVENT datatypes. This is a loadable block, that Novotek has created, that shows the remote time from the PLC in the alarm list instead of the PC time.

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