What's New at Davicom

ALT-NAB 2020 webinar

320 CORTEX

360 CORTEX

John Ahern
President

- Introduction
- New Hardware
- New Firmware Functionalities
- New Main & Backup Controller
- New Davicom EXchange (DEX) support portal

New Hardware

Digital Temperature Probe Interface with SNMP (DTPI)

- 4 input channels
- 5 to 9VDC supply
- Display in °Fahrenheit or °Celsius
- -55° to 125°C range for probes
- Interfaces directly to Davicom RTU's through SNMP
- Can be used independently from Davicom RTU's
- 4 x 3-digit LED displays
- Open MIB for use with other SNMP managers

Digital Temperature Probe Interface

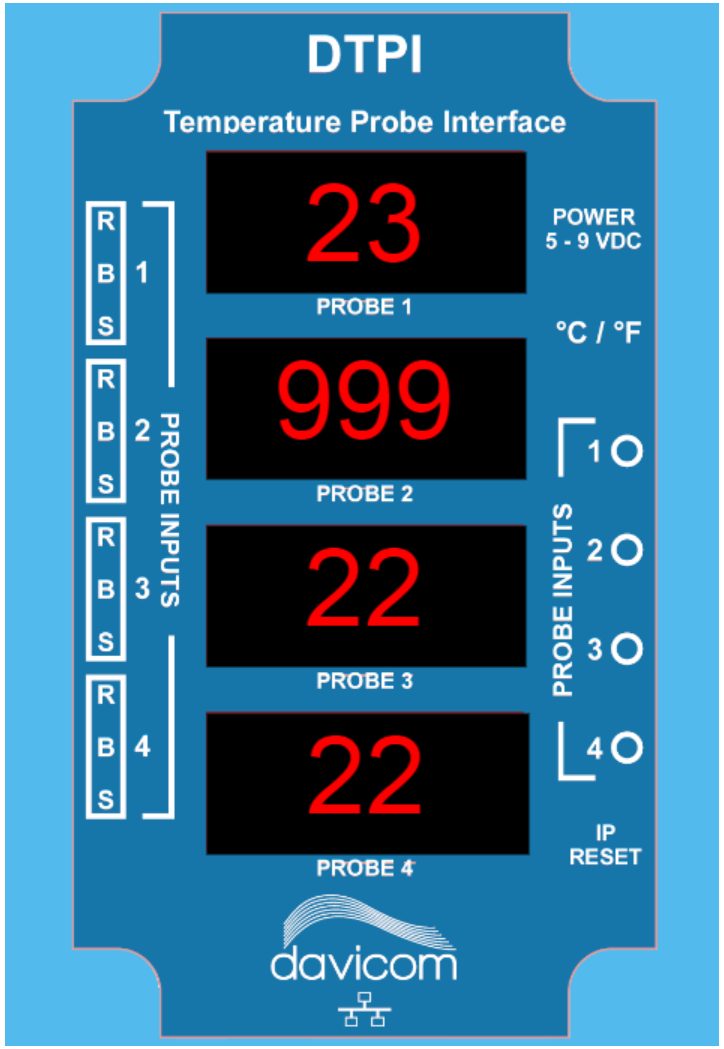
- 4-channels for One-Wire Digital Temperature probes
- Advantages over “analog” temperature sensors:
  - Require no calibration
  - Operate over cable lengths up to 30m
  - RF immunity

Digital Temperature Probe Interface

- Invented by Dallas Semiconductor, now property of Maxim, the DS18B20 digital thermometer provides 9-bit to 12-bit Celsius temperature measurements.
- The DS18B20 communicates over a 1-Wire bus that by definition requires only one data line (and ground) for communication with a central microprocessor.
- In addition, the DS18B20 can derive power directly from the data line (“parasite power”), eliminating the need for an external power supply.
- Each DS18B20 has a unique 64-bit serial code, which allows multiple DS18B20s to function on the same 1-Wire bus.

Digital Temperature Probe Interface

Digital Temperature Probe Interface

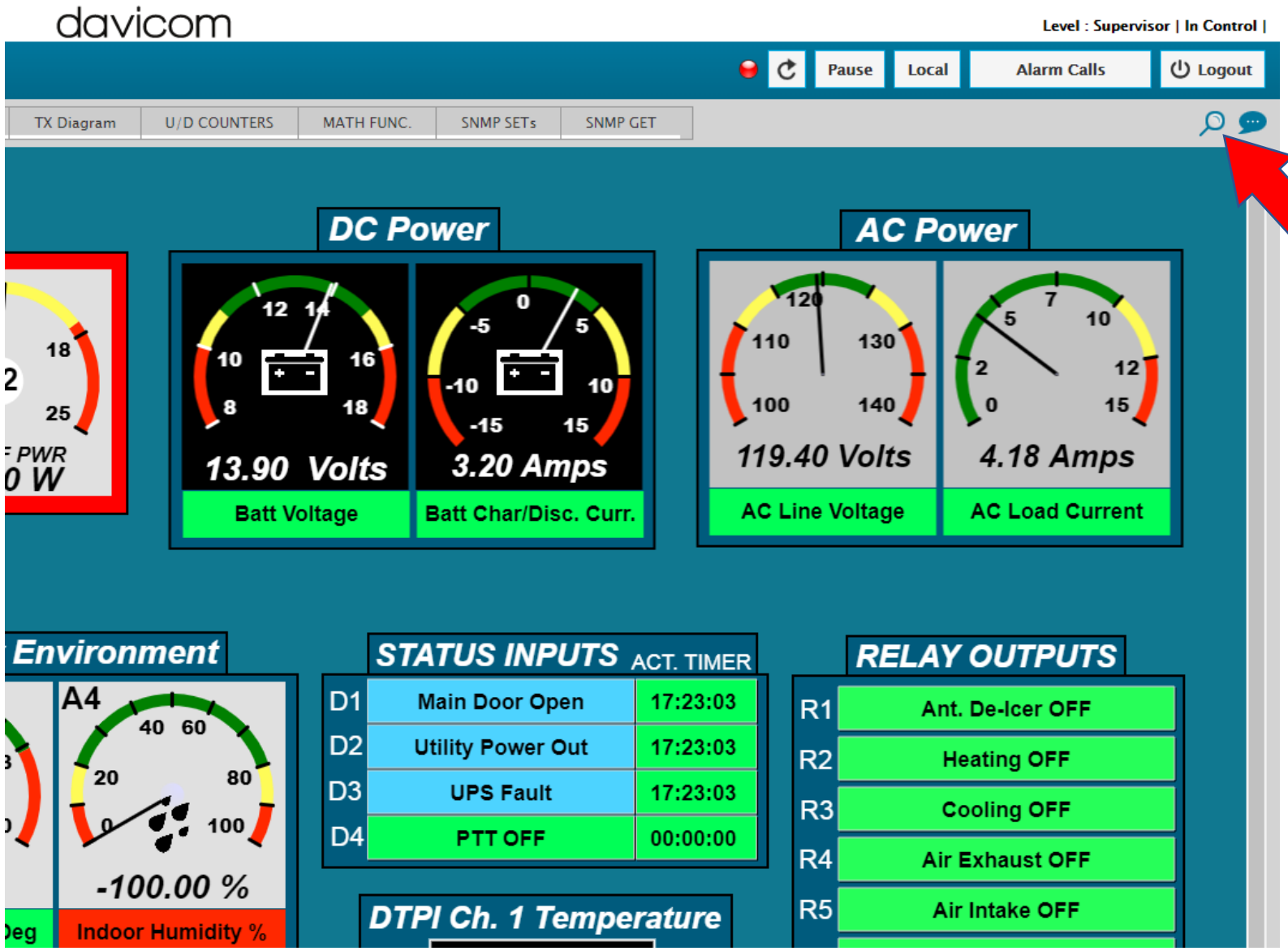


[Cortex360 Live unit]

New Firmware Functionalities

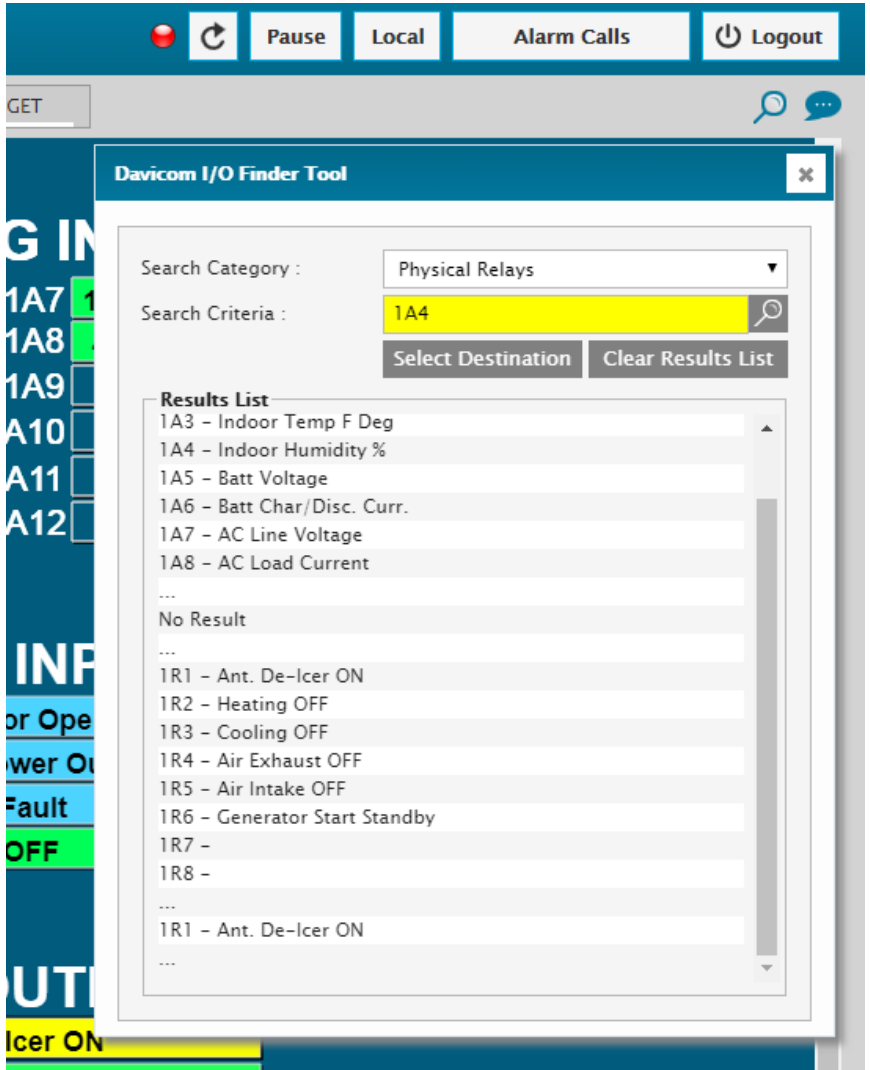
- I/O Finder
- Up/Down counters
- Recordable audio files
- Inter-user online chat
- Signal averaging
- HDMI & Webview displays
- Direct SNMP MIB file download
- SNMP Devices
- MIB Browser (coming soon)

I/O Finder

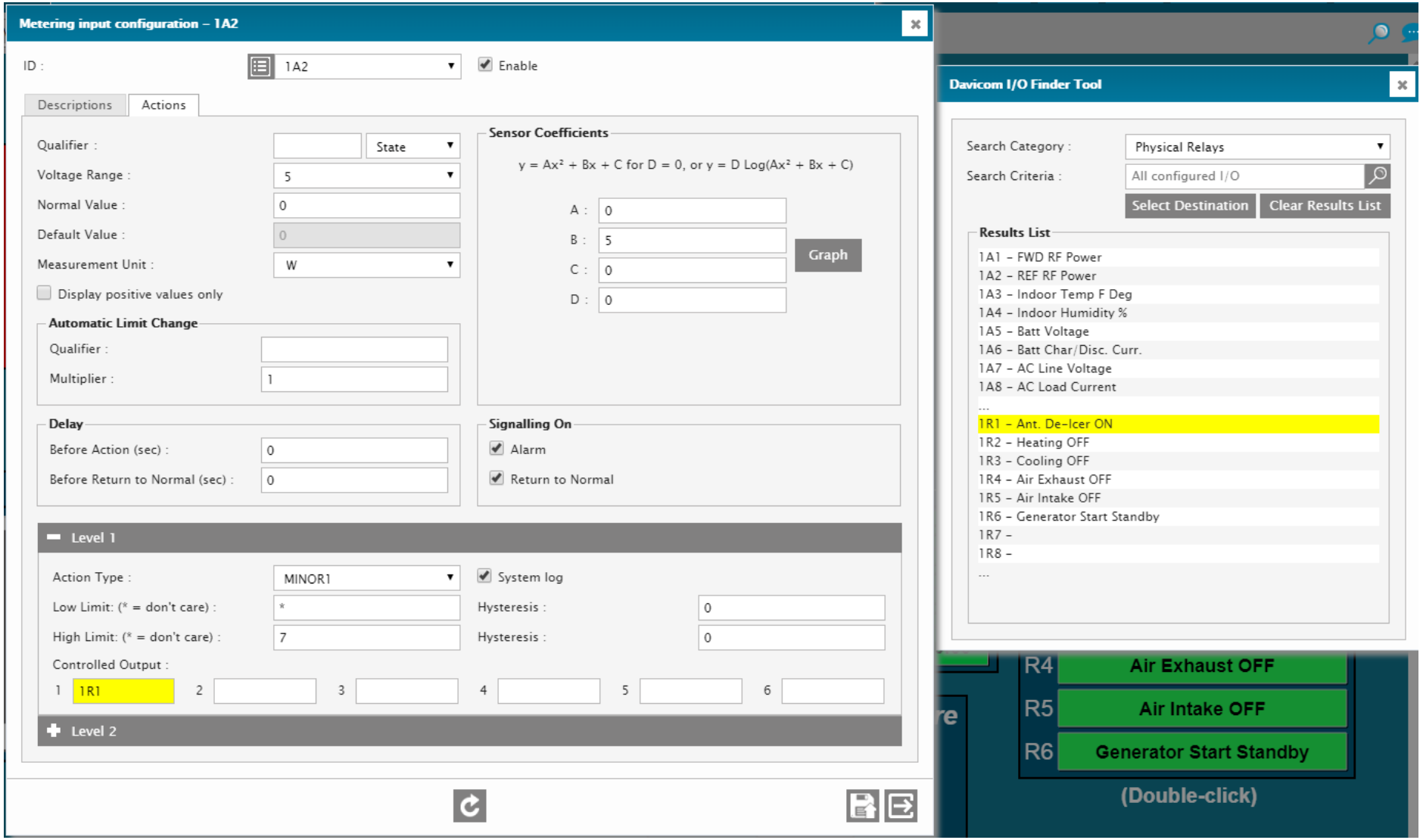

davicom
Level : Supervisor | In Control |
Pause
Local
Alarm Calls
Logout
TX Diagram
U/D COUNTERS
MATH FUNC.
SNMP SETs
SNMP GET
DC Power
13.90 Volts
Batt Voltage
3.20 Amps
Batt Char/Disc. Curr.
AC Power
119.40 Volts
AC Line Voltage
4.18 Amps
AC Load Current
Environment
A4
-100.00 %
Indoor Humidity %
STATUS INPUTS
ACT. TIMER
D1 Main Door Open 17:23:03
D2 Utility Power Out 17:23:03
D3 UPS Fault 17:23:03
D4 PTT OFF 00:00:00
RELAY OUTPUTS
R1 Ant. De-Icer OFF
R2 Heating OFF
R3 Cooling OFF
R4 Air Exhaust OFF
R5 Air Intake OFF
DTPI Ch. 1 Temperature

I/O Finder

Makes finding specific or available I/O points easier

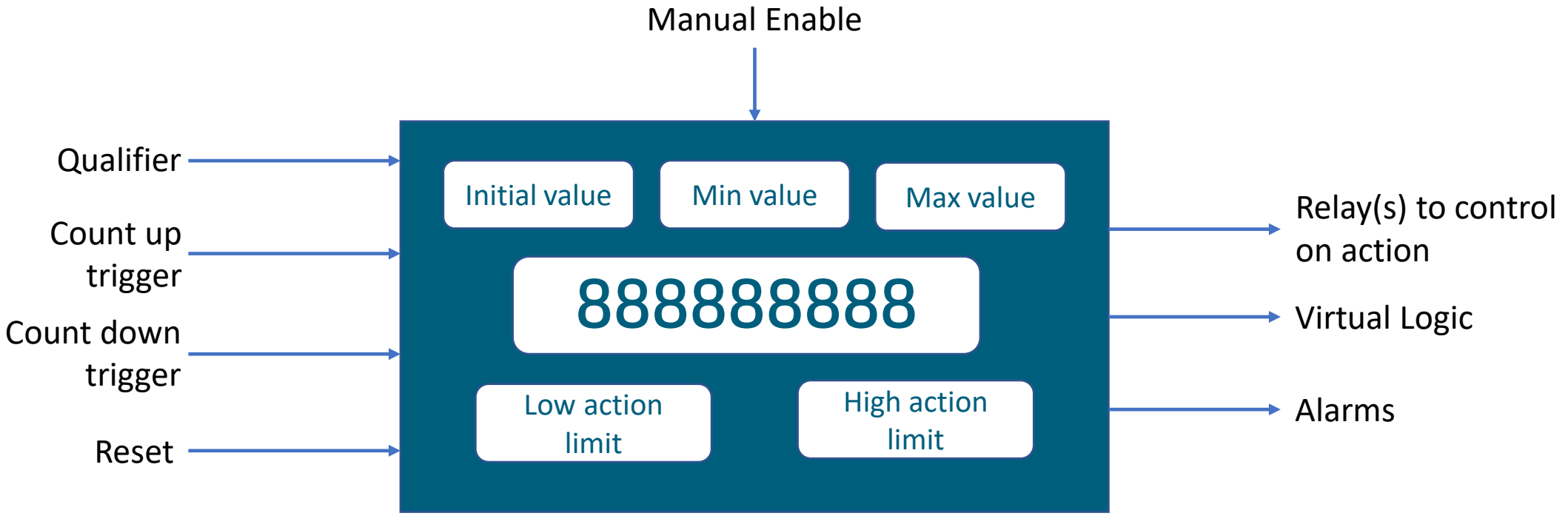


I/O Finder


Metering input configuration – 1A2
ID :
1A2
Enable
Descriptions
Actions
Qualifier :
State
Voltage Range :
5
Normal Value :
0
Default Value :
0
Measurement Unit :
W
Display positive values only
Automatic Limit Change
Qualifier :
Multiplier :
1
Sensor Coefficients
y = Ax² + Bx + C for D = 0, or y = D Log(Ax² + Bx + C)
A :
0
B :
5
C :
0
D :
0
Graph
Delay
Before Action (sec) :
0
Before Return to Normal (sec) :
0
Signalling On
Alarm
Return to Normal
Level 1
Action Type :
MINOR1
System log
Low Limit: (* = don't care) :
*
Hysteresis :
0
High Limit: (* = don't care) :
7
Hysteresis :
0
Controlled Output :
1
1R1
2
3
4
5
6
Level 2
Davicom I/O Finder Tool
Search Category :
Physical Relays
Search Criteria :
All configured I/O
Select Destination
Clear Results List
Results List
1A1 – FWD RF Power
1A2 – REF RF Power
1A3 – Indoor Temp F Deg
1A4 – Indoor Humidity %
1A5 – Batt Voltage
1A6 – Batt Char/Disc. Curr.
1A7 – AC Line Voltage
1A8 – AC Load Current
...
1R1 – Ant. De-Icer ON
1R2 – Heating OFF
1R3 – Cooling OFF
1R4 – Air Exhaust OFF
1R5 – Air Intake OFF
1R6 – Generator Start Standby
1R7 –
1R8 –
...
R4
Air Exhaust OFF
R5
Air Intake OFF
R6
Generator Start Standby
(Double-click)

Up/Down Counter

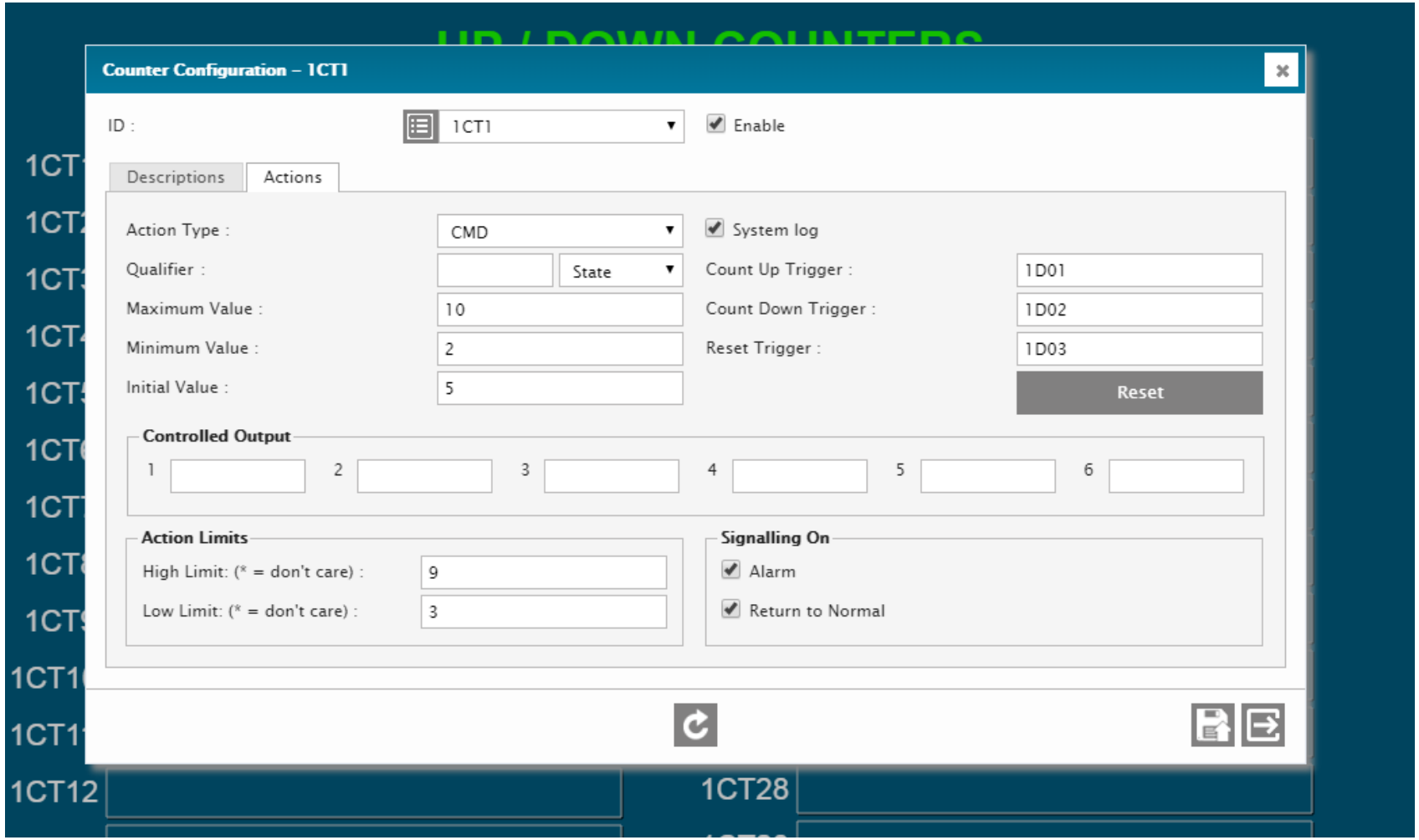
Makes event count-tracking easier



Cortex320: 16 counters

Cortex360: 32 counters

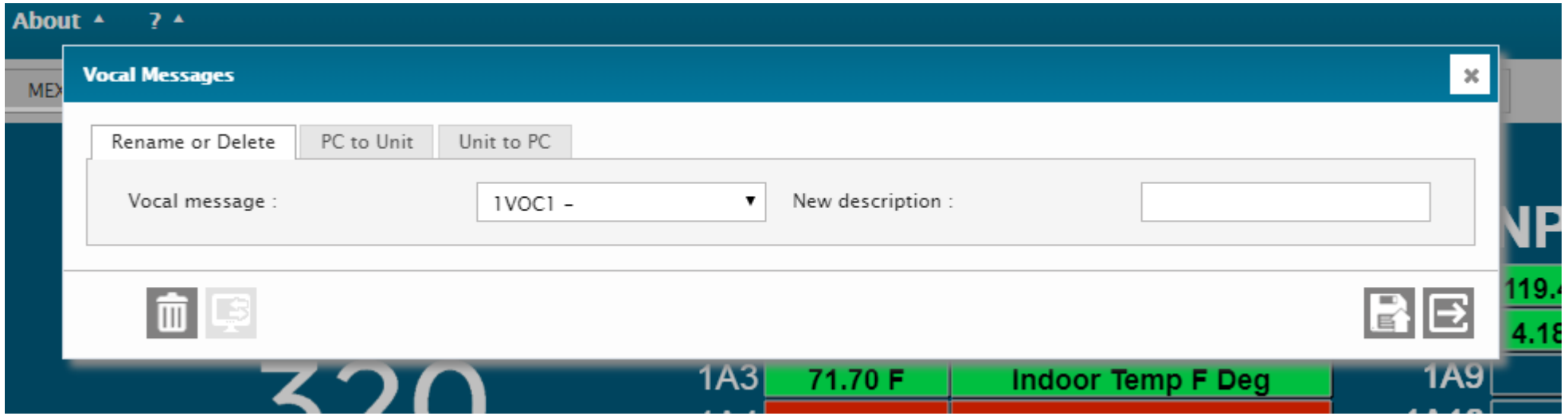
Up/Down Counter



Recordable Voice Messages

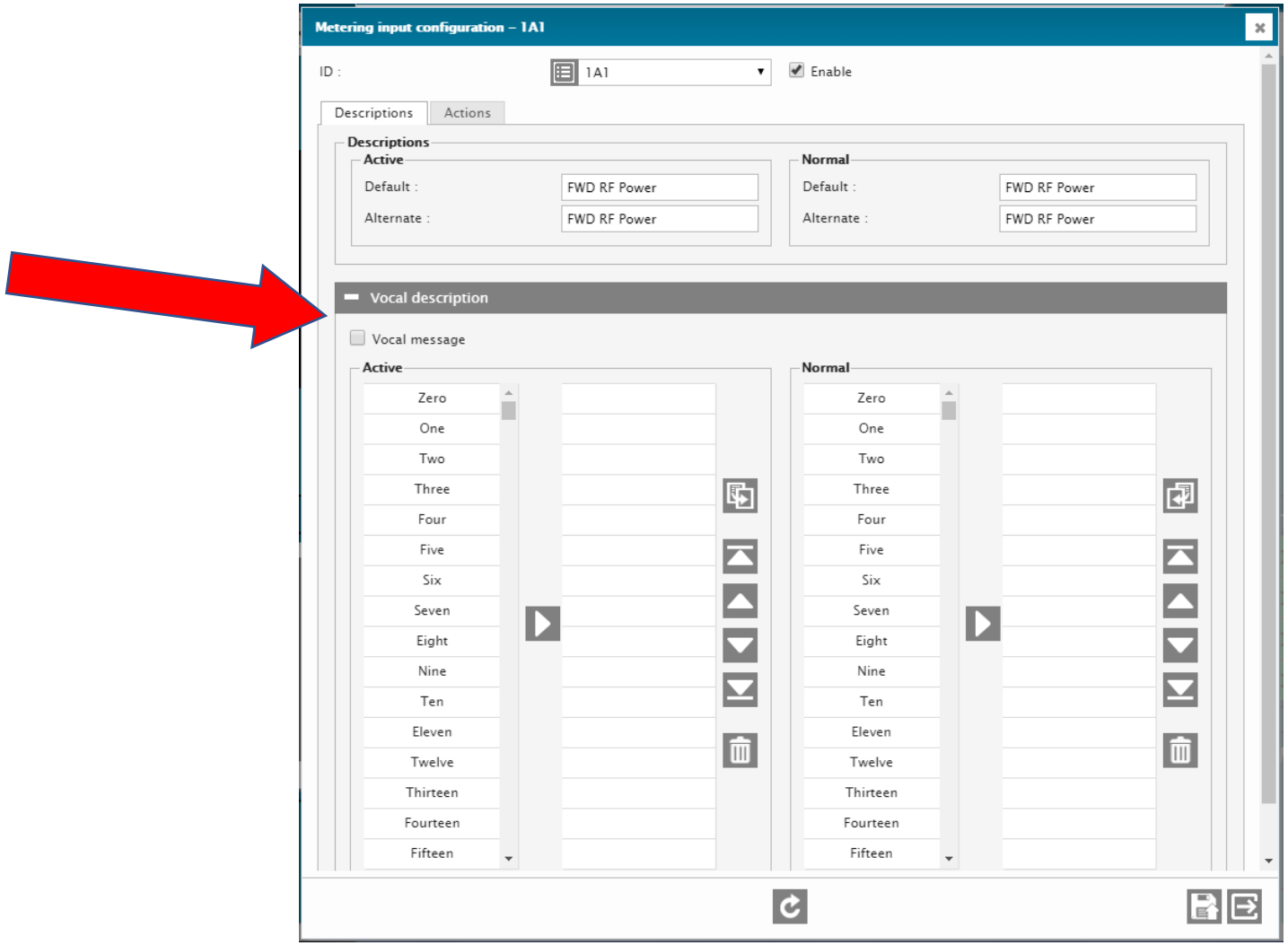
Customizable messages for your specific needs

Recordable Voice Messages

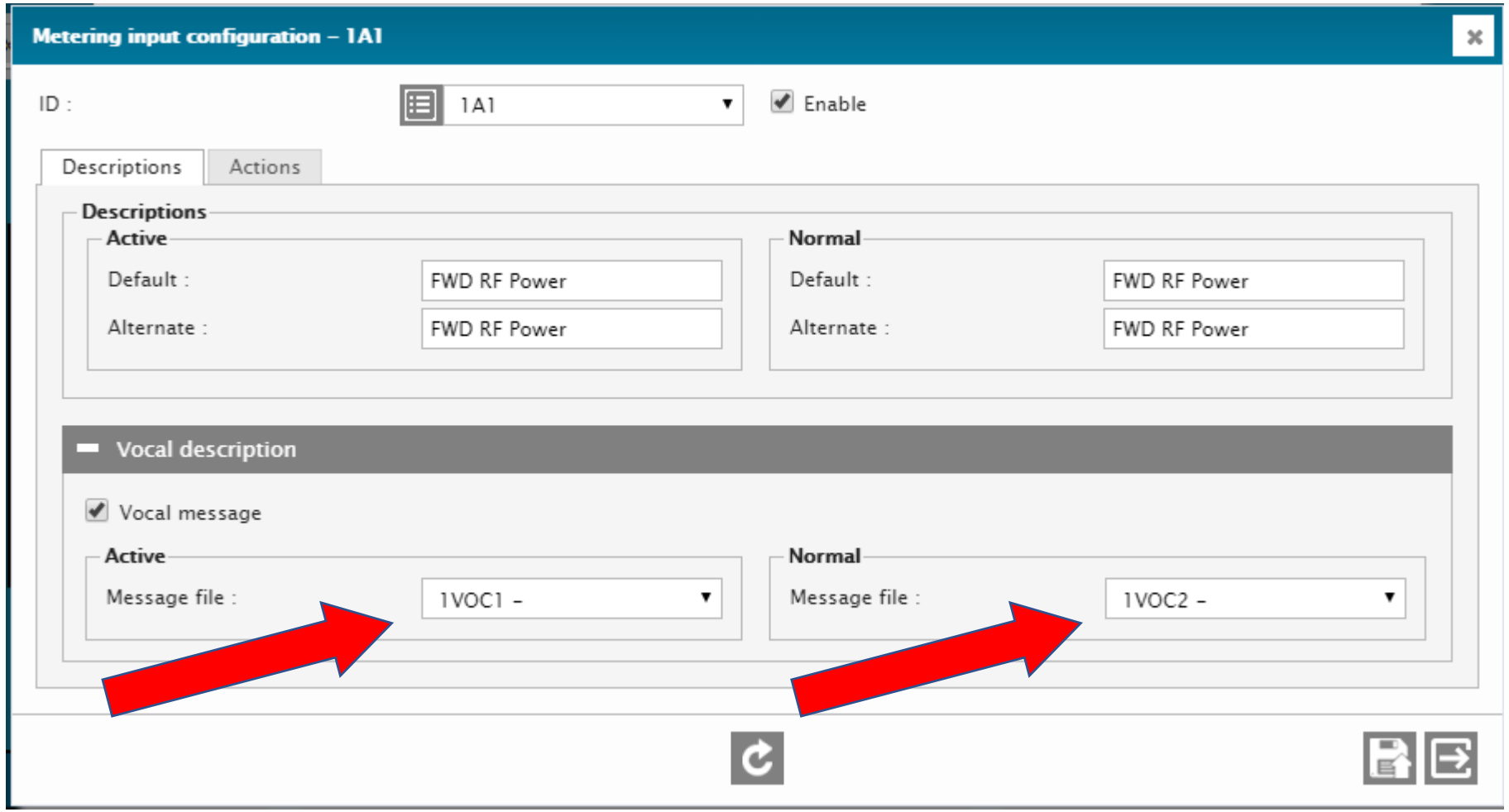


The required file format is WAV or MP3

Recordable Voice Messages

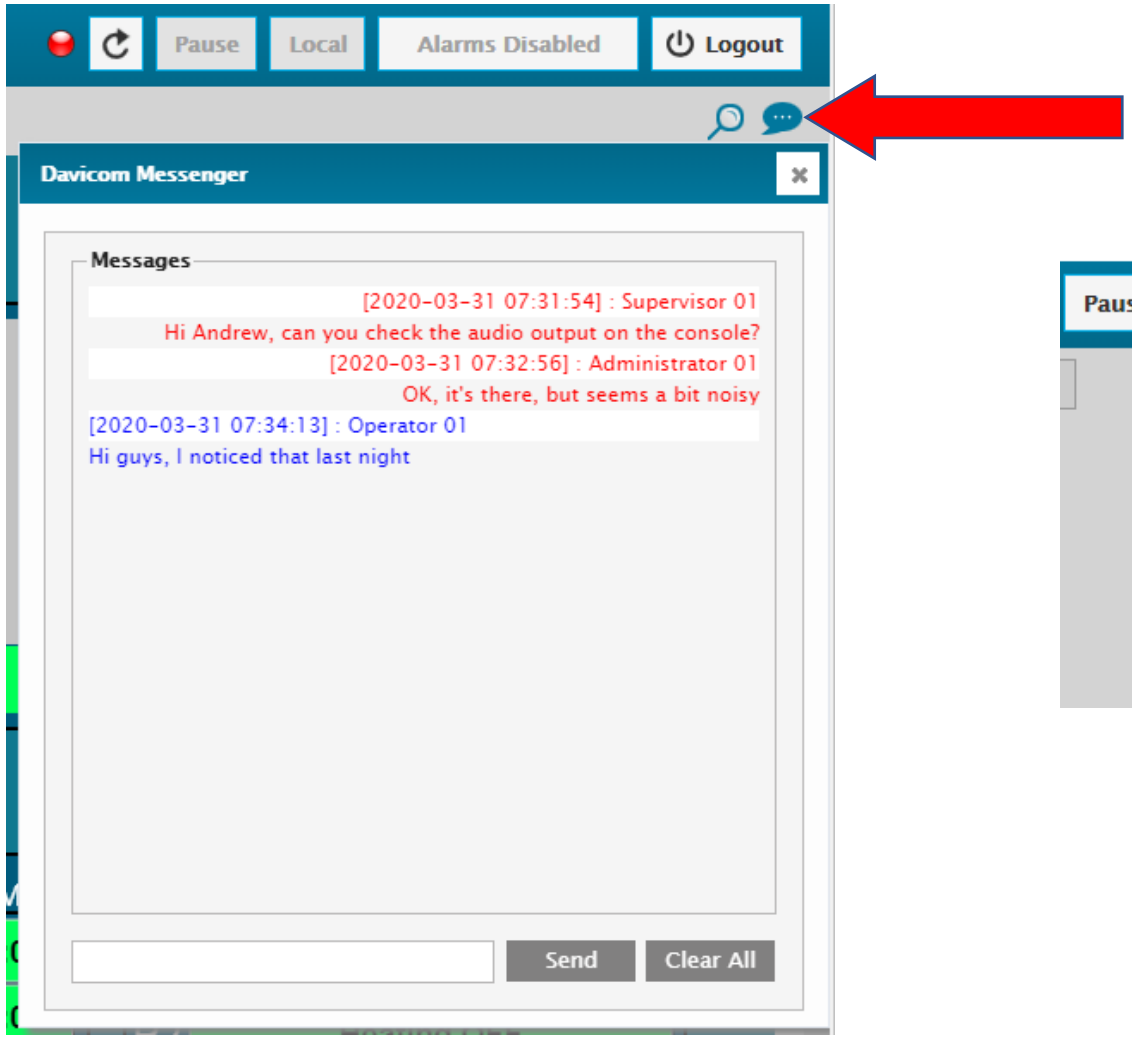


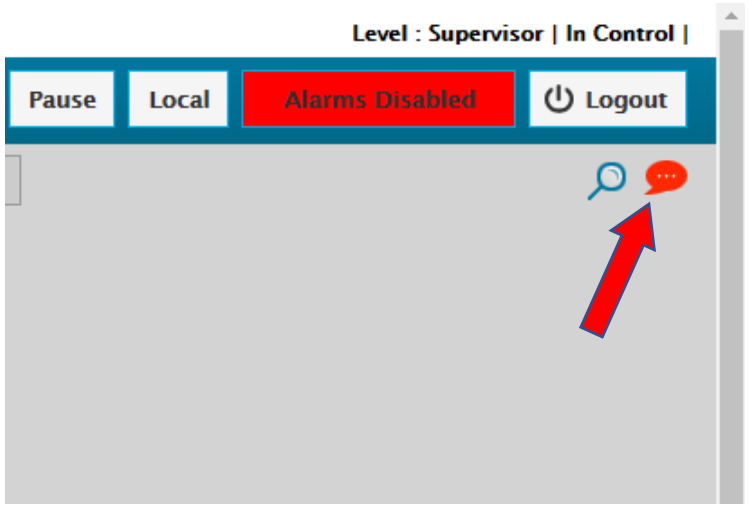
Recordable Voice Messages



On-Line Chat Function

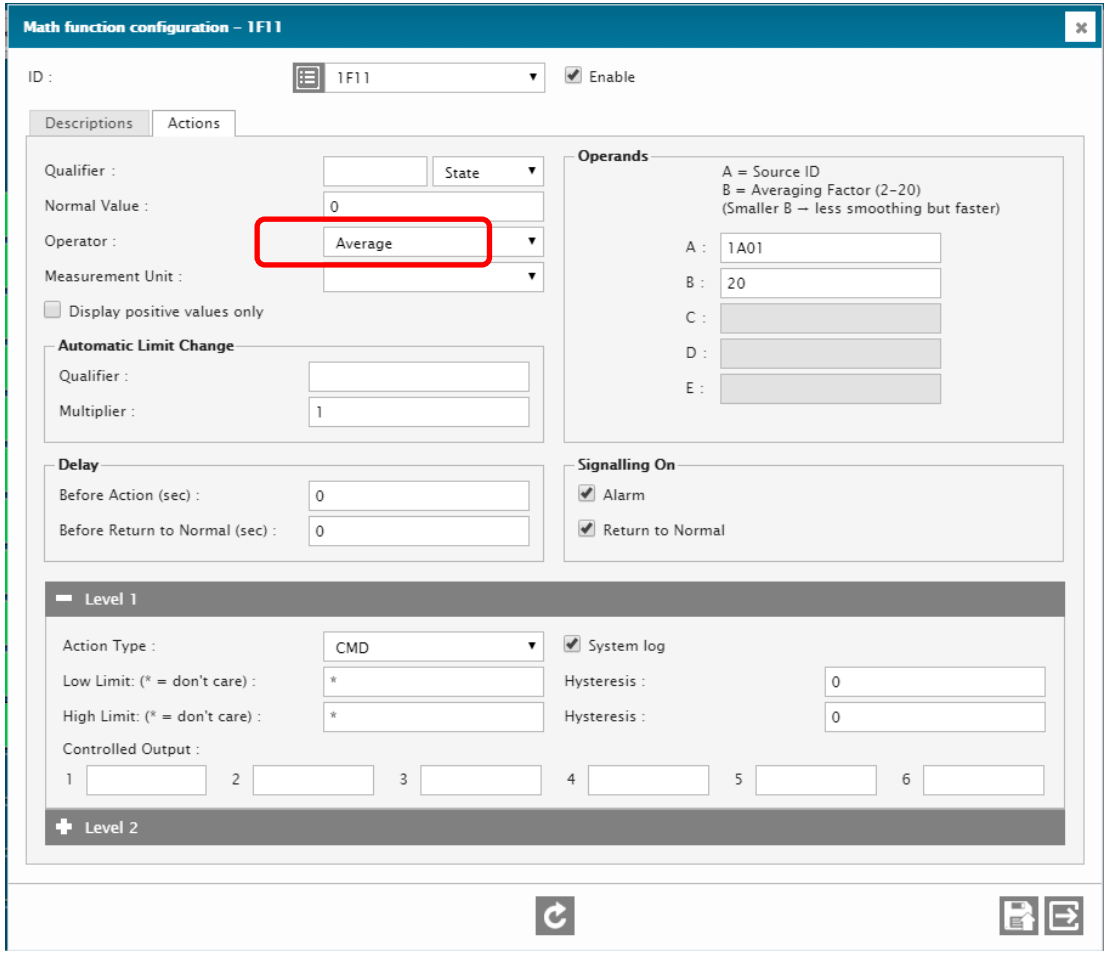
Gives you another option for site communications





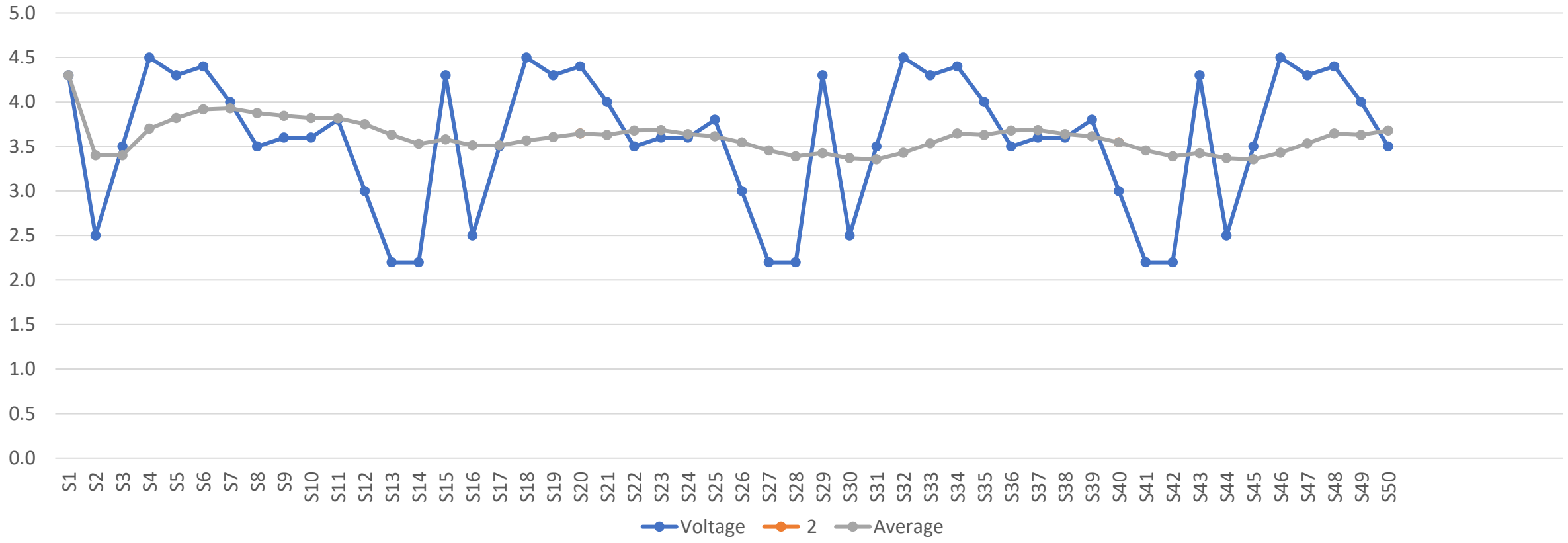
Input Signal Averaging

Reduces noise and false alarms



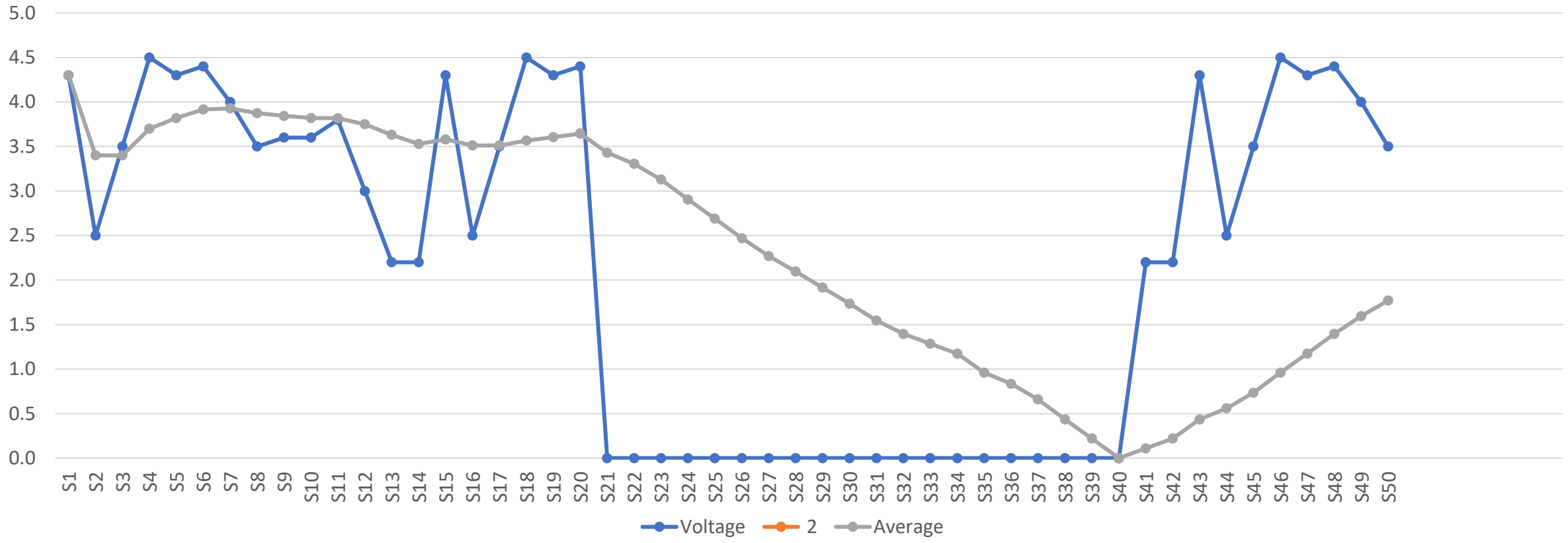
Input Signal Averaging

B=20



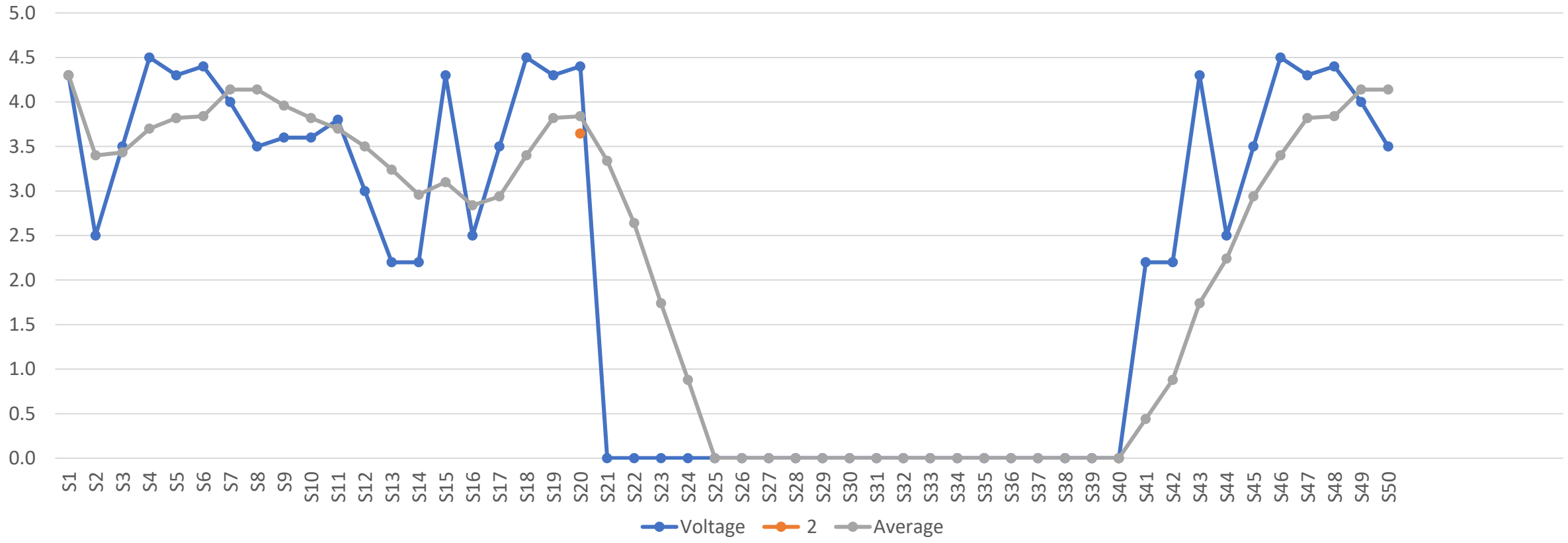
Input Signal Averaging

B=20



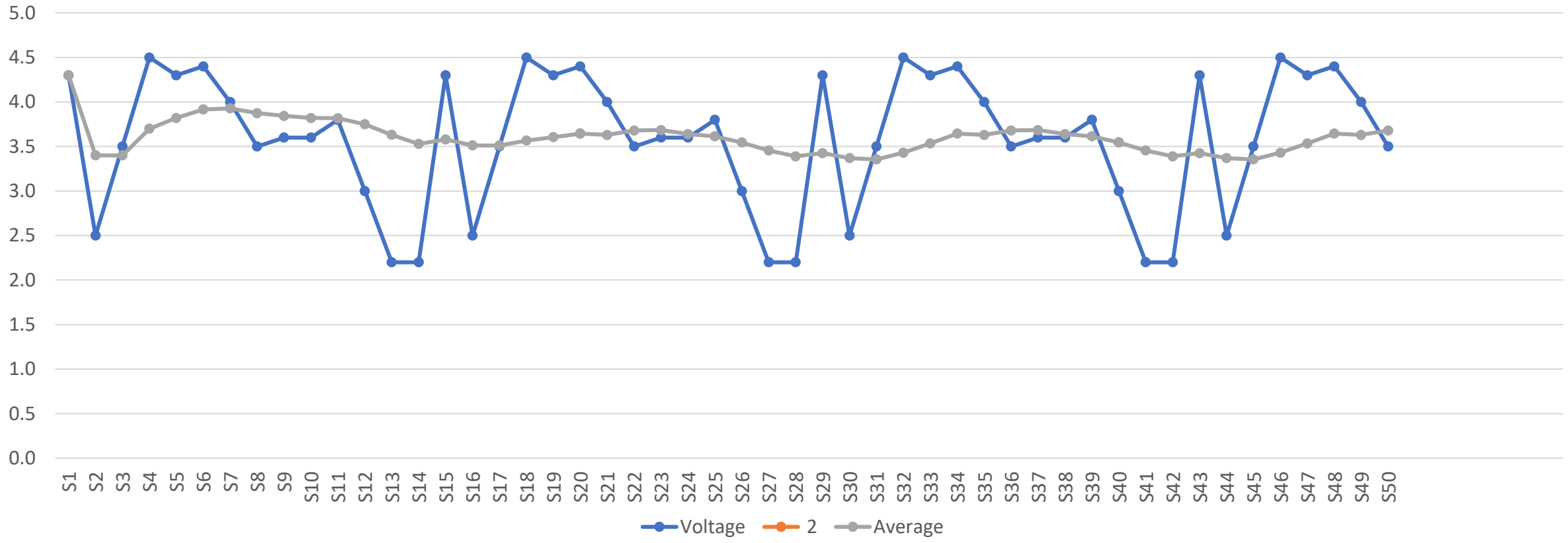
Input Signal Averaging

B=5



Input Signal Averaging

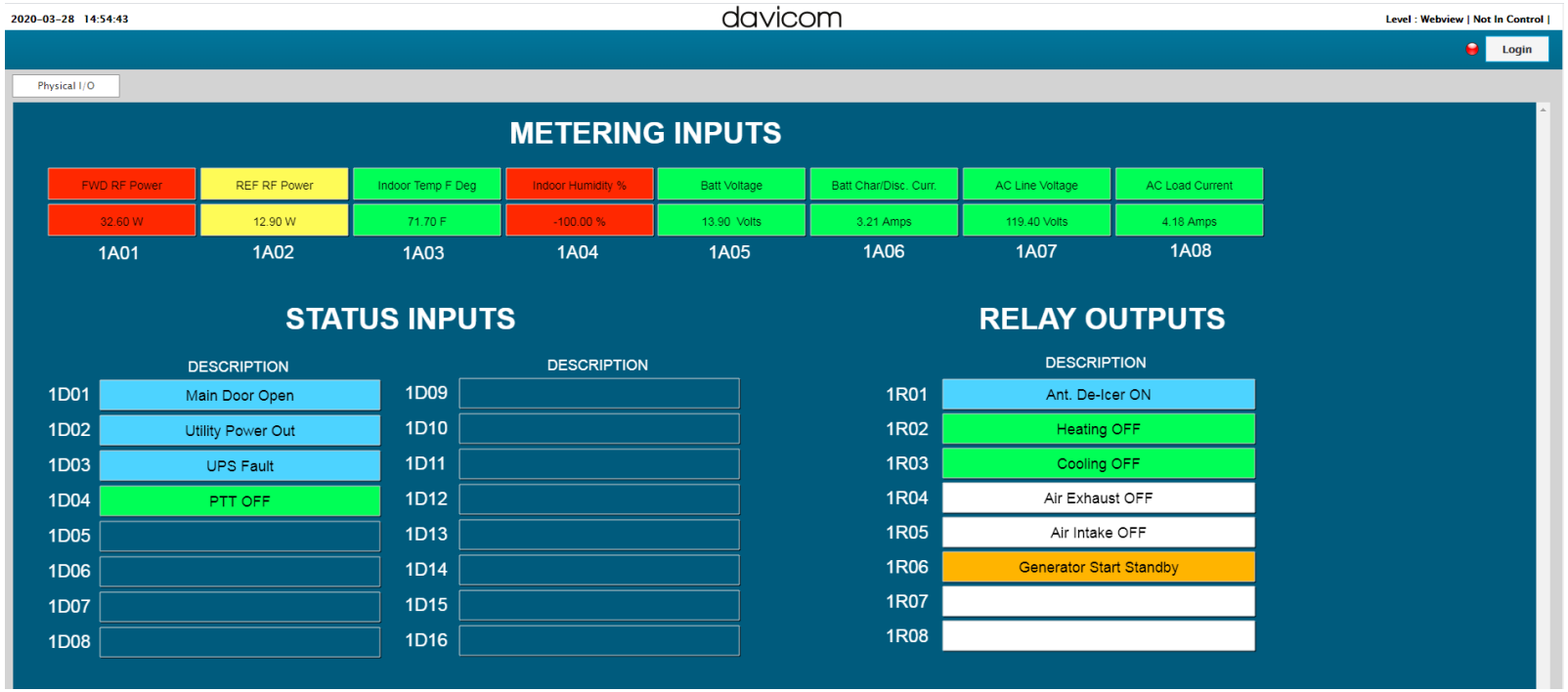
B=20



HDMI User & Webview

Special views for special requirements

- HDMI User is a special user and workspace that outputs only on the rear-panel HDMI connector. Applications are for local alarm display panels, on-site in-rack monitoring (small digital video screen) etc.
- WebView is essentially the same, but can be accessed via an address similar to https://172.16.203.39/webview.html without needing to log-in.



Application Example

HDMI Display for NFPA 1221 BDA Monitoring

LOBBY

Audio Alarms

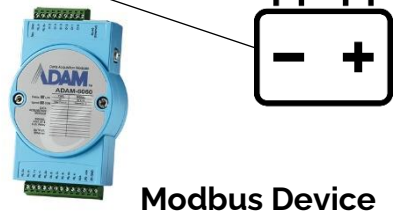
HDMI™

ALARMS ON/OFF STANDBY ON/OFF

Dedicated IP Connection
(Modbus & SNMP)

BASEMENT

Door Temp Power & VSWR



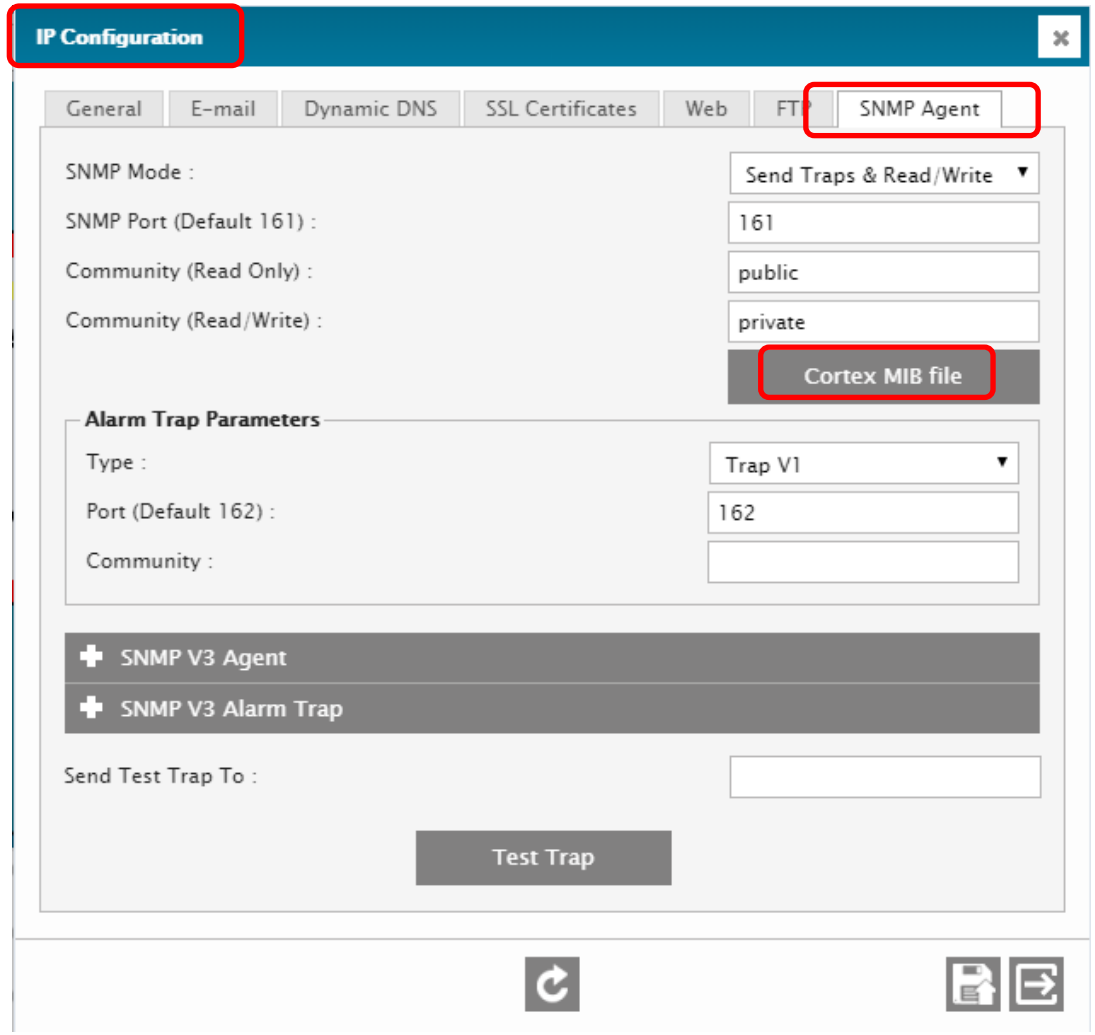
Modbus Device For I/O's

Network Switch

TAIT TB9100 (RSSI, Power Out, PTT)
SNMP Monitoring

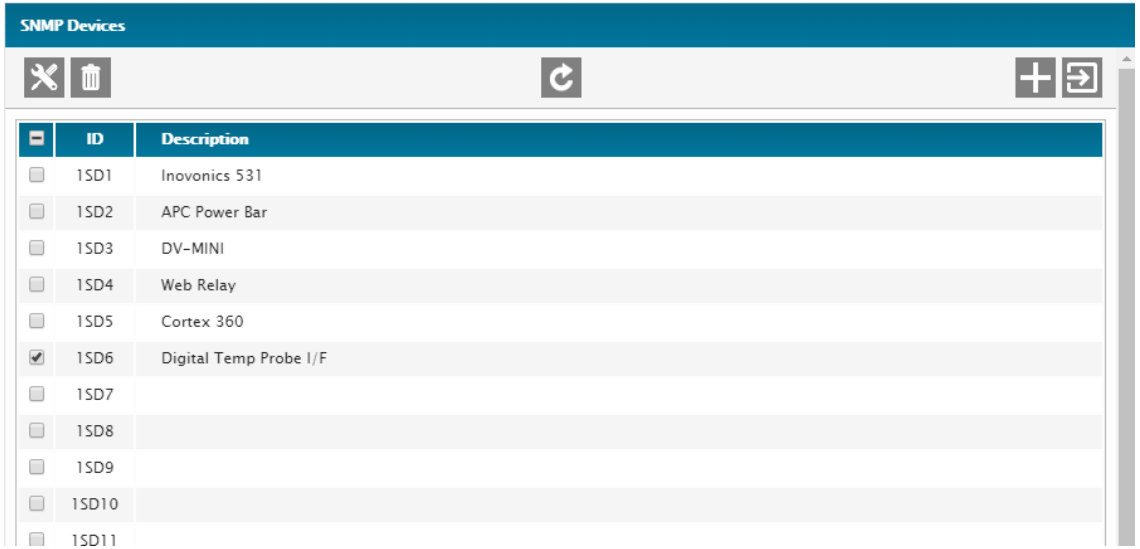
Direct SNMP MIB File Download

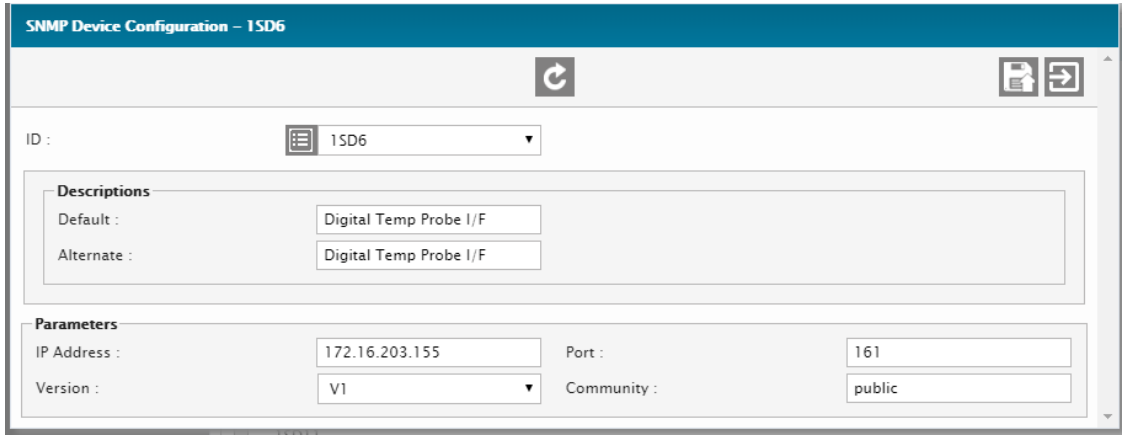
Easier access to this important information



SNMP Devices

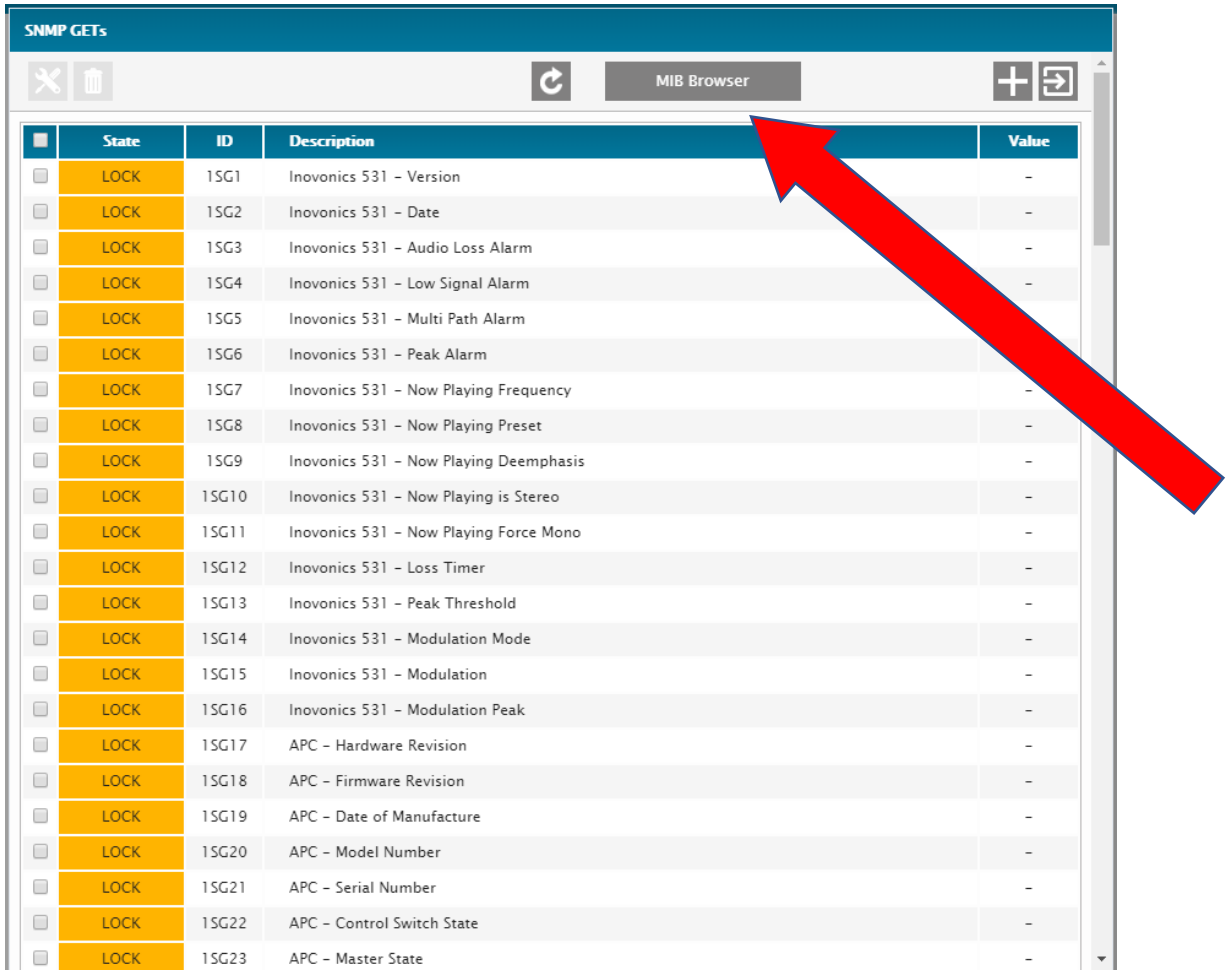
Easier configuration of SNMP devices



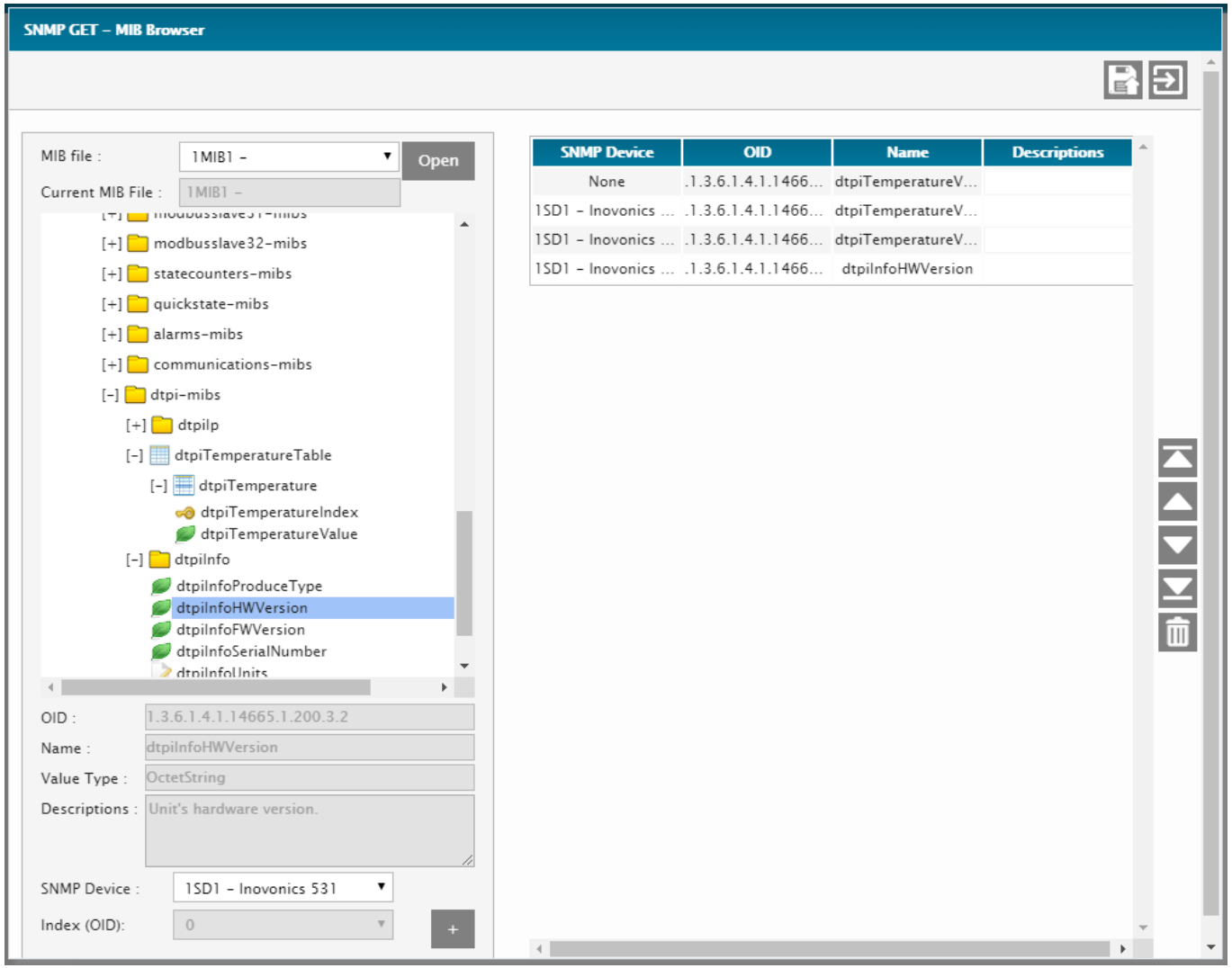


SNMP MIB Browser *(*alpha version firmware only*)*

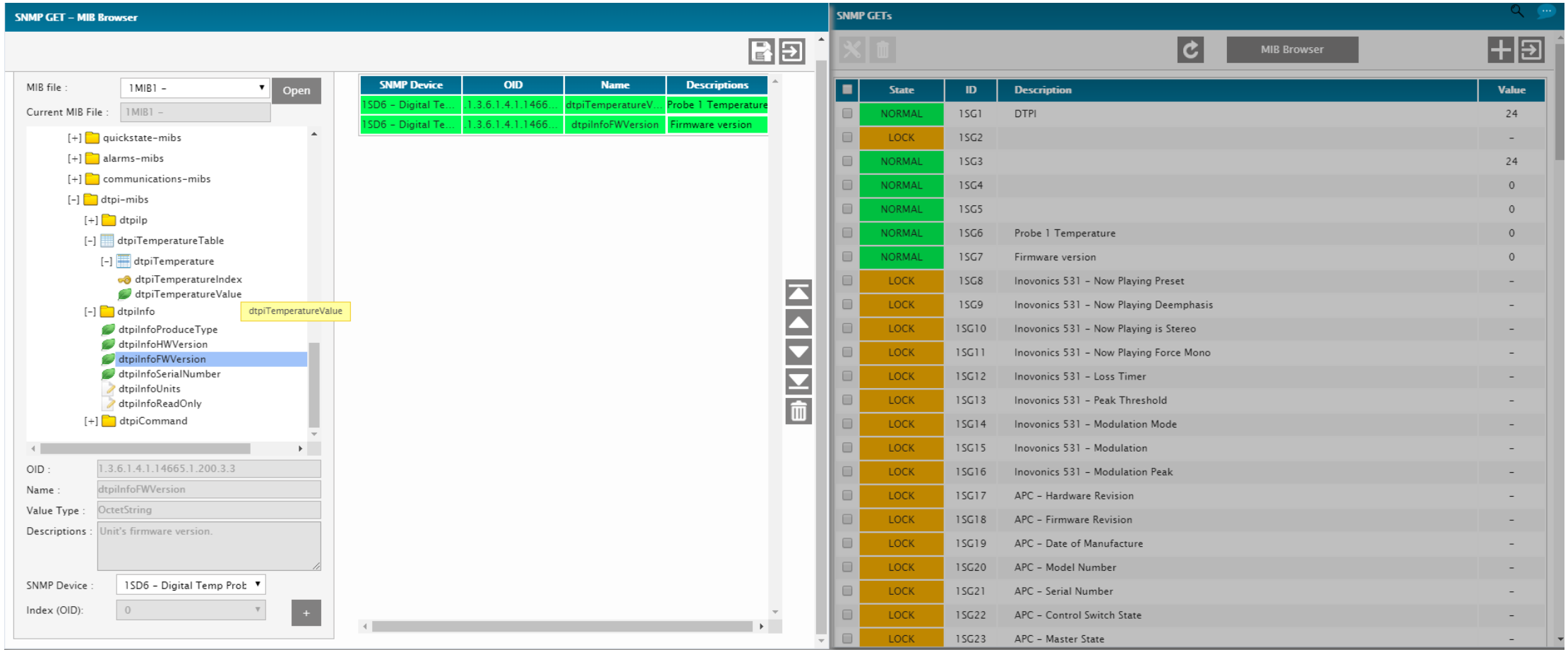
Quicker access to SNMP OID's for easier configuration



SNMP MIB Browser



SNMP MIB Browser



SNMP MIB Browser

Usage

MIB BROWSER

OID selection for transfer table

OID descriptions added

OIDs loaded into available Cortex inputs!

Main + Backup Controller

For Nautel Transmitters

- Dedicated configuration and GUI for Nautel Main & Backup (Aux) control.
- **Based on Davicom's Cortex 320** product, the M&A controller is a plug and play solution for main and backup control. In addition, the system provides **monitoring and alarming capabilities for both transmitters.**
- The Graphical User Interface provides **instant visibility of system status and switchover progress** while allowing safe manual control, if required.
- **Switchover can occur in as little as 2 seconds**, if the interlocks and RF switch respond adequately.
- Interfacing to the transmitters and switches is achieved via metering and status inputs as well as relay outputs.
- **SNMP control and monitoring is also optionally available** for transmitters having such capabilities.

Main + Backup Controller

For Nautel Transmitters

Main + Backup Controller

For Nautel Transmitters

Main + Backup Controller

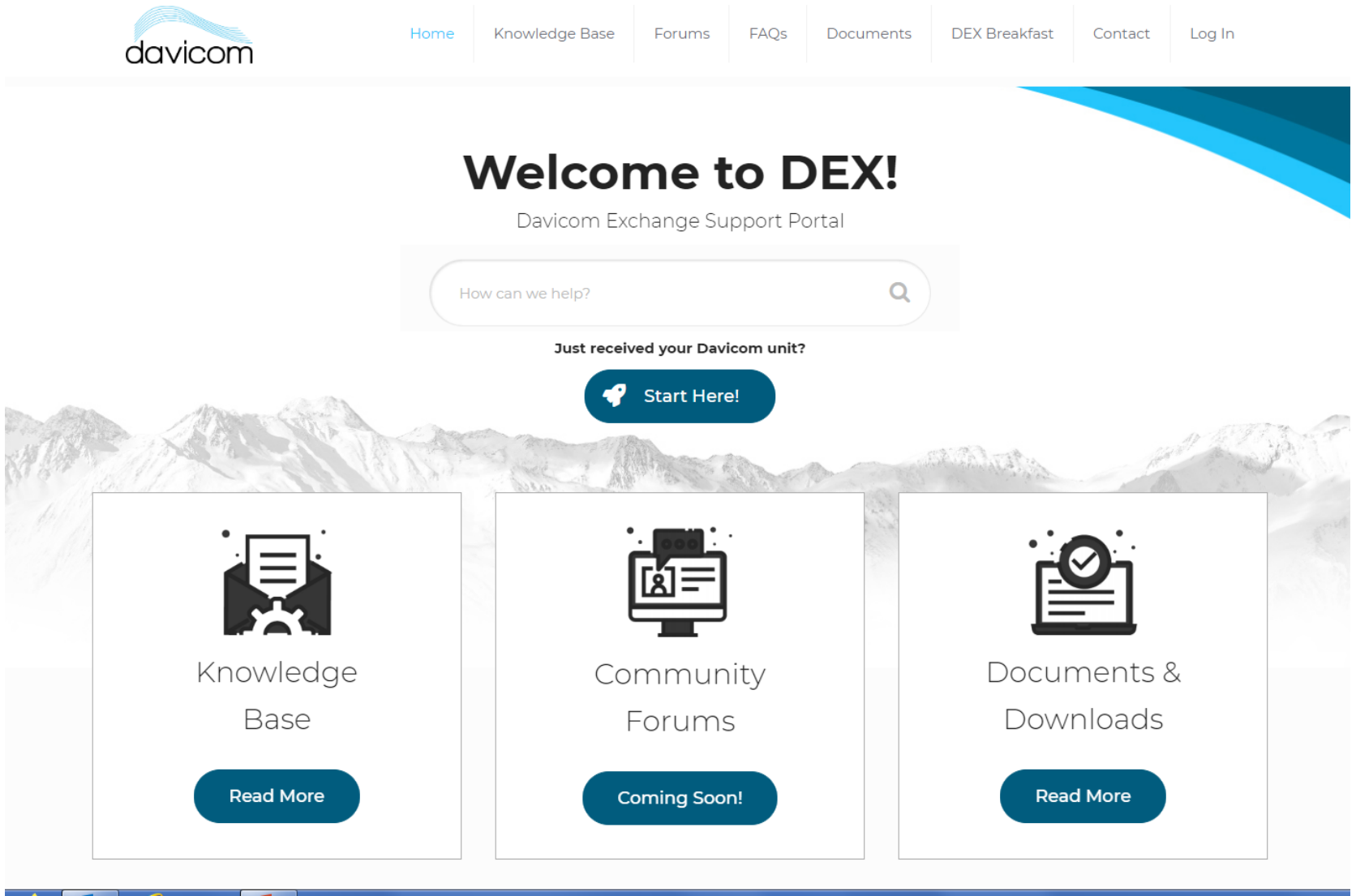
For Nautel Transmitters

Sequence steps
❑ Problem detected in Main TX (low RF power, no response to ping, no audio)
❑ Shut-down main TX
❑ Check to ensure both TX's are off
❑ Switch Main TX to RF load and Backup TX to antenna
❑ Validate position of Baseball switch
❑ Turn Backup TX RF power ON
❑ Keep checking rest of conditions in real-time and wait for manual Return To Normal command.
Features
• Automatic, Manual, Maintenance & Test modes
• Continuous health monitoring of both main and backup transmitters
• Backup TX can be up and on-the-air within 2 seconds
• Complete activity logging and transmission.
• SNMP compatible for newer transmitters
• Switching diagnostics to quickly help identify any problems
• Remote access over dial-up, IP network or low-speed serial links
• Simple Graphical User Interface
Equipment Required
✓ Davicom Cortex 320 unit with Main & Aux system configuration pre-loaded
✓ Interconnection cables and accessories
✓ Optional on-site dedicated HDMI video screen for GUI display
✓ Optional Network switch if SNMP capability is required

And now, a word from our sponsor

See Louis-Charles' in-depth coverage of SNMP & Modbus during his webinar, tomorrow (Wednesday April 22nd) at 11:00 AM EDT

New DEX Support Portal



New DEX Support Portal

Let’s connect and explore!

https://dex.davicom.com

Thank you for attending!

Questions?

Please complete the survey to be eligible for the prize drawing

Stay safe and healthy

the Davicom team