

# **DCMlink AMS SNAP-ON Application**

Intelligence Made Simple





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## The DCMlink Software

DCMlink Software is the command and control software for all of Bettis Electric actuators. DCMlink is an innovative software platform that enhances plant productivity by unifying all electric actuators on a common platform while allowing plant operators to gain deep insights into asset status and performance. DCMlink enable users to configure, calibrate, monitor, and diagnose all electric actuators from a central location independent of protocol, actuator or host system. The software extends the useful life of field assets by providing actuator data gathering, condition monitoring, events log and prioritization of actuator alarms in a unified and consistent user interface backed by Emerson Dashboard quidelines.

Features:

- Unified user interface for all electric actuators including support for TEC2, XTE3000, EHO, TEC2000, and M2CP
- Real time actuator monitoring and control
- Integrated management of asset data, profiles, alarm, and event logs
- Advanced diagnostics including torque profile curves, valve control, and status monitor
- Easy to use configuration and calibration methods
- PlantWeb<sup>™</sup> compatible Alarms in NE-107 format, alarm log, and event log features
- Communicate using HART wire and Wireless protocols
- Simplified tree view and logo view for easy navigation
- Air, dry, or lubricated and inert gases
- Dew point at least 10K below ambient temperature
- For sub-zero applications, take appropriate measures
- Mentioned pressure levels are "gauge pressures"
  Gauge pressure is equal to absolute pressure minus atmospheric pressure

#### NOTE:

The Product Data Sheet will be updated when new versions of the software release. To ensure you have the latest version and information, check our DCMlink downloads page.

In case there are any questions or inquiries regarding this PDS and supporting information, please do not hesitate to contact **info.actuationtechnologies@emerson.com** 

### Figure 1 Tag ID and Status in DCMlink



Figure 2 Valve Controlling in DCMlink



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### **DCMlink Standard Features**

Unified Actuator Configuration and Control

- Easy to use, next generation software based on human centered design. Gather the necessary installation tools and documentation
- Promotes single, uniform solution to control, configure and monitor all Electric Actuators
- Supports TEC2, TEC2000, XTE3000, EHO, and M2CP

Actuator Status Monitoring

- Real time and remote monitoring
- Live trending of critical parameters such as position and torque
- Simplified status reports for over 50 alarms
- Alarms reporting based on NE-107 standard
- Analog or digital indicator dials

#### **Easy Configuration**

- Detailed actuator configuration
- Import/export configuration to/from other devices

#### Networking Protocol Support

- HART (AMS SNAP-ON)

#### Valve Diagnostics

- Torque profile for M2CP, TEC2000, TEC2, and XTE3000
- Pressure Profile for EHO
- Offline and Online Diagnostics
- Archived torque profile

#### Valve Control

- Initiate Partial stroke test (PST) or Emergency shutdown (ESD)
- Control relays/Analog Out
- Change setpoint

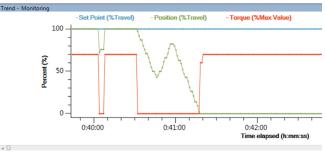
### Figure 3 Actuator Status Monitoring



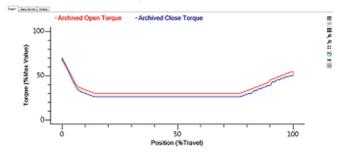
#### Figure 4 Alarm Management



#### Figure 5 Live Trending of Critical Parameters



#### Figure 6 Valve Diagnostics in DCMlink



### The DCMlink Software

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#### Calibration

- Analog Input/Output Calibration
- EHO Self Calibration
- Analog Torque Pot Calibration

#### Trace Log

- Ability to record all error conditions
- Support technical resolution of field issues

#### **Event Logging**

- Data event log captures and logs events by user, time, and date
- Actuator configuration changes
- Calibration changes
- Diagnostic tests

#### Figure 7 Event Logger

Sr. No.	Event No	Time	Event Type	Additional Information					
287	0	2000 January 01 04:22:20.00 PM	Valve Movement Started, Current Position = 1451 {0x05AB}	Valve Position has Moved or Stopped Moving					
286	1	2000 January 01 04:22:20.00 PM	Motor Status: Source = Analog, Motor Action = Motor Opening, Desired Setpoint = 2908 (0x085C)	Motor Status		Motor Status		Motor Status	
285	2	2000 January 01 04:22:04.00 PM	LDM Internal Temperature is 1°C	Internal Temperature of LDM					
284	3	2000 January 01 04:21:56.00 PM	Valve Movement Stopped at Position = 1419 {0x0588}	Valve Position has Moved or Stopped Moving					
283	4	2000 January 01 04:21:56.00 PM	Motor Status: Source = Analog, Motor Action = Motor Stopped, Desired Setpoint = 2867 (0x0833)	Motor Status		Motor Status		Motor Status	
282	5	2000 January 01 04:21:46.00 PM	Valve Movement Started, Current Position = 4713 (0x1269)	Valve Position has Moved or Stopped Moving					
281	6	2000 January 01 04:21:46.00 PM	Motor Status: Source = Analog, Motor Action = Motor Opening, Desired Setpoint = 2497 {0x09C1}	Motor Status					
280	7	2000 January 01 04:21:42.00 PM	Valve Movement Stopped at Position = 4681 {0x1249}	Valve Position has Moved or Stopped Moving					
279	8	2000 January 01 04:21:42.00 PM	Valve Movement Started, Current Position = 4681 (0x1249)	Valve Position has Moved or Stopped Moving					
278	9	2000 January 01 04:21:40.00 PM	Valve Movement Stopped at Position = 4649 (0x1229)	Valve Position has Moved or Stopped Moving					
277	10	2000 January 01 04:21:40.00 PM	Valve Movement Started, Current Position = 4649 {0x1229}	Valve Position has Moved or Stopped Moving					
276	11	2000 January 01 04:21:36.00 PM	Valve Movement Stopped at Position = 4681 {0x1249}	Valve Position has Moved or Stopped Moving					
275	12	2000 January 01 04:21:36.00 PM	Valve Movement Started, Current Position = 4681 {0x1249}	Valve Position has Moved or Stopped Moving					
274	13	2000 January 01 04:21:34.00 PM	Valve Movement Stopped at Position = 4649 {0x1229}	Valve Position has Moved or Stopped Moving					

#### Figure 8 Actuator Configuration

Control Discrete Inp	uts Relays Analog ESD/Inhibits	Speed Network	Notes		
Parameter	Actuator		Dataset		
Control Mode	Network	•	- Analog	•	
Remote Control Signal	Momentary	Momentary		Momentary 👻	
Local Control Signal	Momentary	4	Momentary	Momentary •	
Seating	Torque	(	- Torque	Torque 🔹	
Backseat	Torque	<b>(</b>	Position	Position	
LED Color	Open Green/Close Red	4	Open Green/	Open Green/Close Red	
Close Torque Limit	50	%	> 50	% 🗘	
Open Torque Limit	50	% 4	50	% 🗘	

## **DCMlink Specifications**

The following information lists the language, hardware and software compatibilities of DCMlink. In case there are any questions or inquiries regarding this section and supporting information, please do not hesitate to contact DCMlink Helpdesk:

#### **Phone Number:**

International Access Code +1-(281) 499-1561 / (800) 679-1561 toll-free (US Only)

Fax Number:

International Access Code +1-(281) 499-8445 E-Mail Address:

### DCMlink.Registration@emerson.com

Supported Languages

- DCMlink Software v2.4 is available in English

Supported Operating Systems

— Windows 10 (64 bit)

#### NOTE:

DCMlink Software is not supported on Windows XP (32/64-bit), Windows 2012 Server (64-bit), Windows 7 Professional SP1 (32/64-bit), Windows 2012 server (64-bit) and Windows 8 (64 bit). Software Requirements

- Microsoft Edge version 42 or later is recommended

Hardware Requirements

- Computer and Processor:
  - 1 Gigahertz (GHz) or faster processor
- Memory:
  - 1 Gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
- Hardware:
  - No Trending -- 65 Megabytes (MB) available storage space
  - Trending -- 125 Megabytes (MB) available storage space
- Drive:
  - CD-ROM Drive
- Display:
  - 1024 X 768 resolution
  - 256 colors

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