

DCMlink Actuator Software

Intelligence Made Simple



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The DCMLink Software

DCMLink Software is a command and control software for Emerson's electric actuators. DCMLink is an innovative software platform that enhances plant productivity by unifying electric actuators on a common platform while allowing plant operators to gain deep insights into asset status and performance. DCMLink enables users to configure, calibrate, monitor and diagnose 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's Dashboard guidelines.

Features:

- Unified user interface for electric actuators including support for Bettis XTE3000, RTS Series, Smart EHO, M2CP and MPA; Biffi ICON3000; and EIM TEC2, TEC2000 and HQ
- Ability to work with other DCS systems in addition to Emerson's DeltaV™
- Real time actuator monitoring and control
- Integrated management of asset data, profiles, alarms and event logs while generating reports as needed
- Advanced diagnostics including torque profile curves, valve control and status monitor
- Quick and convenient actuator firmware upgrade using the software.
- Easy to use configuration and calibration methods
- Alarms in NE 107 format, alarm log and event log features
- Communicate using FOUNDATION™ Fieldbus, infrared, Modbus®, Modbus TCP-IP, HART® and Bluetooth® protocols
- Simplified tree view and logo view for easy navigation
- Available in multiple languages

Note:

The Product Data Sheet (PDS) is updated when new versions of the software are released. 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 Houston.Inquiries@Emerson.com.

Figure 1. Tag ID and Status in DCMLink

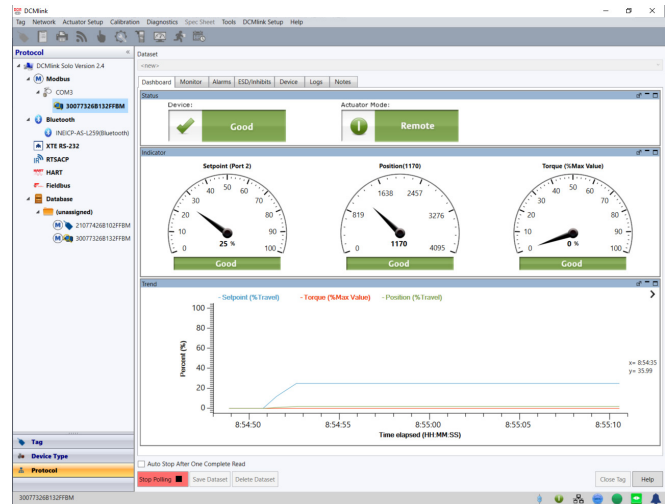
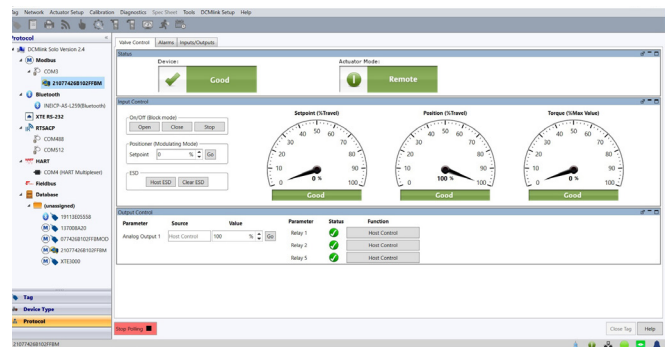


Figure 2. Valve Controlling in DCMLink



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 necessary for a quick start-up.
- Promotes single, uniform solution to control, configure and monitor all electric actuators.
- Supports Bettis XTE3000, RTS Series, Smart EHO, M2CP and MPA; Biffi ICON3000; and EIM TEC2, TEC2000 and HQ.

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
- Quick and convenient actuator firmware updates via DCMLink

Multiple Networking Protocol Support

- Modbus
- Modbus TCP/IP
- RDM Slave (TEC2000)
- Bluetooth
- HART (SOLO, AMS SNAP-ON and DTM)
- Infrared
- FOUNDATION Fieldbus (SOLO, AMS SNAP-ON and DTM)

Bluetooth Capability

- Auto search function to automatically find Bluetooth enabled actuators
- Ability to configure, control and diagnose data over Bluetooth

Figure 3. Actuator Status Monitoring

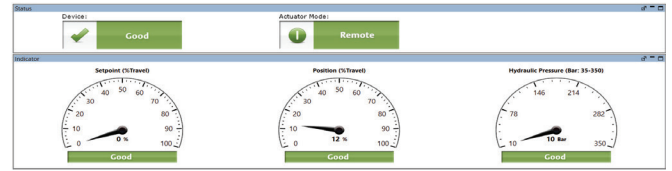


Figure 4. Alarm Management



Figure 5. Live Trending of Critical Parameters

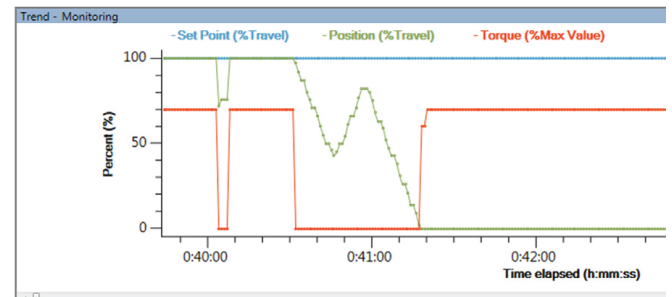
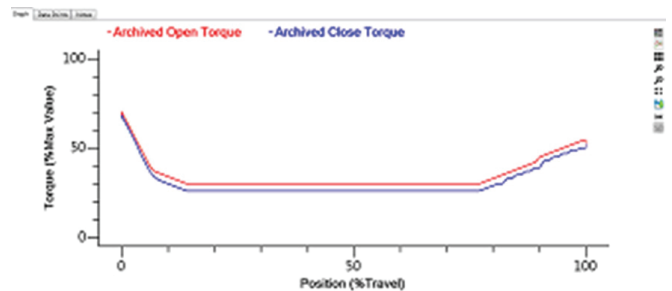


Figure 6. Valve Diagnostics in DCMLink



Valve Diagnostics

- Torque profile for Bettis XTE3000 and M2CP; Biffi ICON3000; and EIM TEC2 and TEC2000
- Pressure Profile for Smart EHO
- Offline and Online Diagnostics
- Archived torque profile
- Generate detailed report showing the overall health of the actuator

Valve Control

- Initiate Partial Stroke Test (PST) or Emergency Shutdown (ESD)
- Control relays/Analog Out
- Change setpoint

Calibration

- Analog Input/Output Calibration
- Smart 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

Note:

DCMLink Software is available for compatible desktop and laptop devices (see DCMLink Specifications on next page). A DCMLink Lite app with specific functionality is available for select mobile devices; more information on this app can be found on the emerson.com website.



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 (0x054B) | 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 (0x0B5C) | 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 (0x058B) | 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 (0x0B33) | 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

| Parameter | Actuator | Dataset |
|-----------------------|----------------------|----------------------|
| Control Mode | Network | Analog |
| Remote Control Signal | Momentary | Momentary |
| Local Control Signal | Momentary | Momentary |
| Seating | Torque | Torque |
| Backseat | Torque | Position |
| LED Color | Open Green/Close Red | Open Green/Close Red |
| Close Torque Limit | 50 % | 50 % |
| Open Torque Limit | 50 % | 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 is available in English, Spanish and Chinese

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 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 MB available storage space
 - Trending - 125 MB available storage space
- Display:
 - 1024 X 768 resolution
 - 256 colors
- RS485 converter:
 - Recommend using USOPTL4, optically isolated product from B&B Electronics

www.emerson.com

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