DiagnosticLink 8.20 Features

Service Diagnostics & Tools

6/6/2024

DAIMLER TRUCK
North America

DiagnosticLink® 8.20 Features Summary

- Updated the support files (CBFs, SMR-Ds, and SCBFs) for powertrain, chassis, and EMG ECUs.
- Added a new ‘Hardware’ tab to the ‘Options’ dialog. The ‘SID Configure’ option has been moved to this new tab (formerly located within the ‘Connection’ tab). The ‘Hardware’ tab also allows the user to freely configure how each installed PDU-API is used.
- Added OIDC login option to the ‘Server’ tab. The OIDC option can be checked to connect to the required server for Gen 5 Cascadia support (with CeBID enabled ECUs).
- Added the ‘ECP Valve Monitoring Instrumentation’ panel allowing ECP01T to display the valve positions.
- The SID version is now displayed in the ‘Help About’ menu.
- When prohibited, the programming option to ‘Newest’ will not be available for chassis ECU programming.
- The tool will display ‘This option is not available for the current license’ on the ‘Select operation’ page.
- Modified the ‘XMC-Digital Pinouts I/O Control’ panel to include ‘Fast Out State’ instruments for new XMC Domain time sensitive output.

DiagnosticLink® 8.20 Features Summary (cont.)

- Resolved an error with the ‘NOx Sensor Verification’ panel where the routine did not complete. The routine will now work with ACM301T.
- Added a new ‘Hardware’ tab to the ‘Options’ dialog.
- ‘Anti-Lock Braking System Instrumentation’ panel has been added for SBSP01T.
- Updated the ‘Telematics’ panel for CTP03T new hardware variants.
- Fixed issue where the initial display of DiagnosticLink® may be empty if the connected vehicle or fixture does not contain content assigned to the display within the ‘Common’ panel.
- DiagnosticLink® is now sourced to retrieve troubleshooting content from the new TechLit system.
- Updated the registration message to more clearly define the different scenarios (e.g., corporate, customer, and manufacturing use cases).
- Starting with DiagnosticLink® 8.20, Microsoft .Net Framework 4.8 is required.
- Added instruments to the ‘eTransmission Diagnostics Instrumentation’ panel.
- Updated the ‘eDrive Coolant Loop Test’ panel to make the diagnostics functional.
- ‘Interior Lighting’ panel added for EMG.

Updated Support Files

- CBF file updates included for powertrain ECUs:

ECU	TCM05T	CPC302T	CPC502T	MCM21T
CBF Version	00.00.022	01.00.632	(SMR-D) 02.00.89	21.0.526

- CBF file updates included for chassis ECUs:

ECU	CGW04T	ECP01T	ICC501T	ICUC01T	IPPC01T	OPSR01T	RDF01T	SAS03T	XMC402T	XMC502T	XMC602T
CBF Version	01.01.102	02.00.071	01.01.891	02.03.321	0.00.983	04.00.081	0.00.281	03.00.181	01.00.421	01.00.421	01.00.421

- SMR-D file updates included for chassis ECUs:

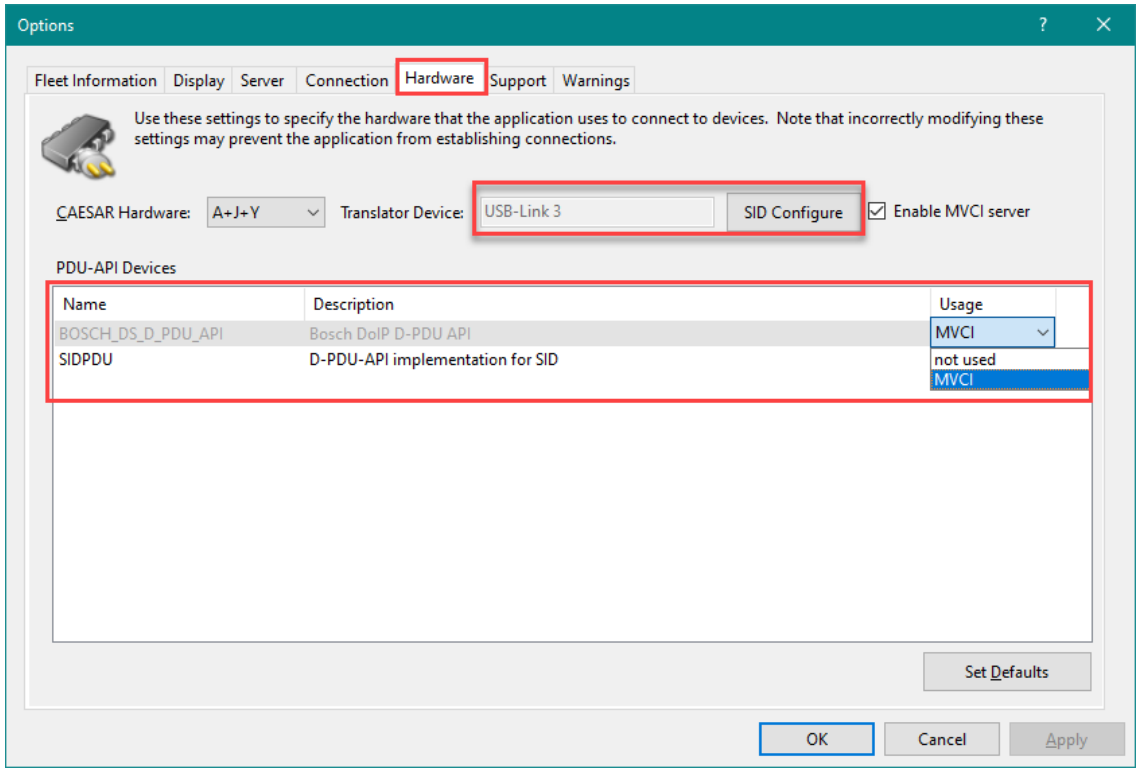
ECU	CGW05T	CTP03T	ICC501T	MPC03T	RDF03T	SAS02T	SATP01T	SBSP01T	SRRFL02T	SRRFR02T	SRRL02T	SRRR02T	VRDU03T
CBF Version	04.02.90	04.02.90	01.01.921	04.04.90	04.03.00	04.03.00	04.03.70	04.02.70	04.02.50	04.02.50	04.02.50	04.02.50	04.02.70

- SCBF file updates included for EMG ECUs:

ECU	BMS01T	BMS201T	BMS301T	BMS401T	BMS501T	BMS601T	BMS701T	BMS801T	BMS901T	ECPC01T
CBF Version	01.00.262	01.00.262	01.00.262	01.00.262	01.00.262	01.00.262	01.00.262	01.00.262	01.00.262	00.00.329

Hardware Tab Added to the Options Dialog

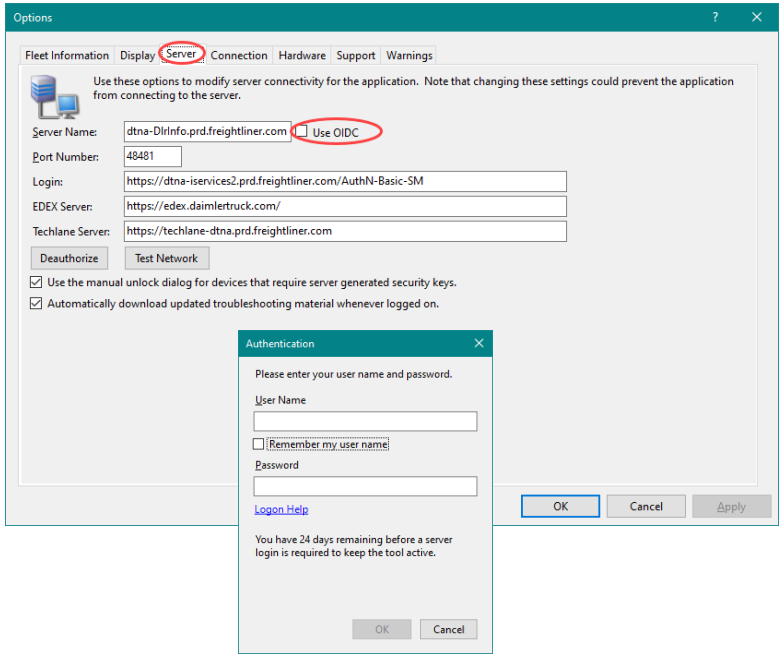
- A Hardware tab has been added to the Options dialog.
- SID Configure (formerly located under the Connection tab) can be used to configure the installed device drivers.
- CAESAR Hardware and PDU-API Devices can be configured under the Hardware tab as well.



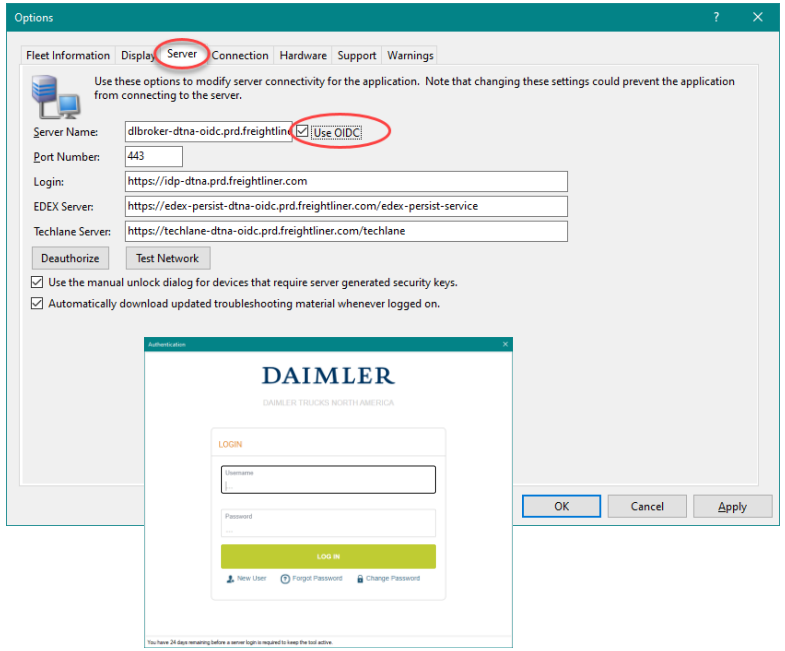
OIDC Login Option

- As part of CeBID cyber security, the OIDC login option has been added to the Server tab. Selecting this option enables the OIDC server connection which is required for Gen 5 Cascadia with CeBID enabled ECUs.
- When checked or unchecked, will flip between OIDC and SiteMinder based connection.

Default SiteMinder Login

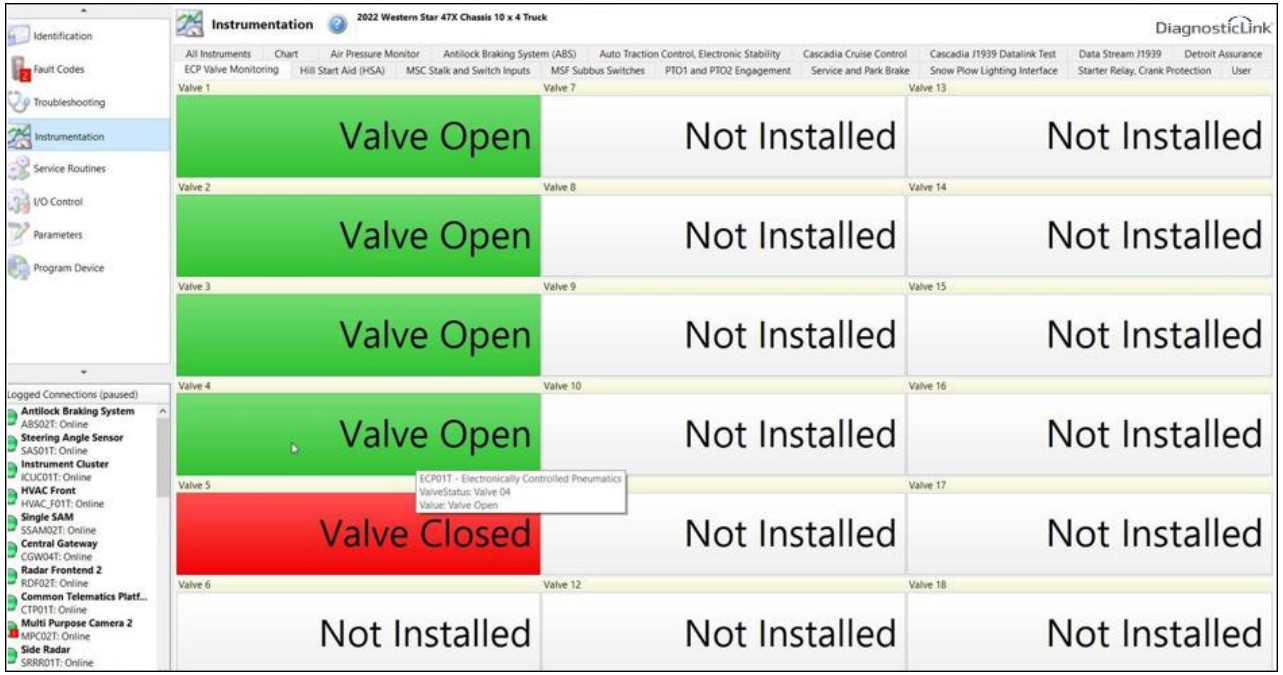


OIDC Login (option checked)



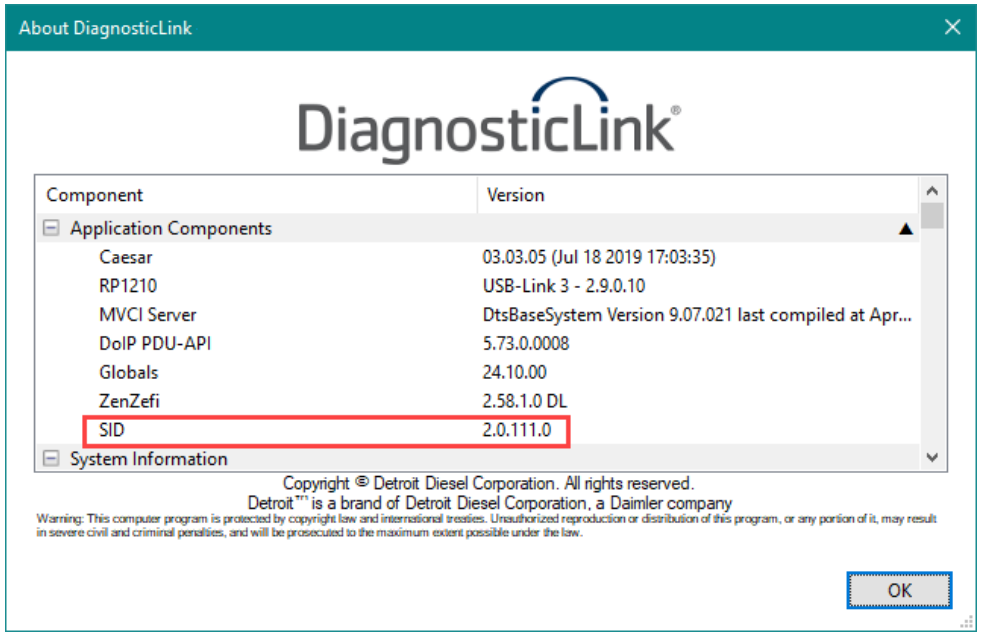
ECP Valve Monitoring Instrument Panel

- The ECP Valve Monitoring Instrument panel has been added to allow ECP01T to display the valve position.
- This panel displays the valve positions and provides technician with the information on which valves are installed on the vehicle.



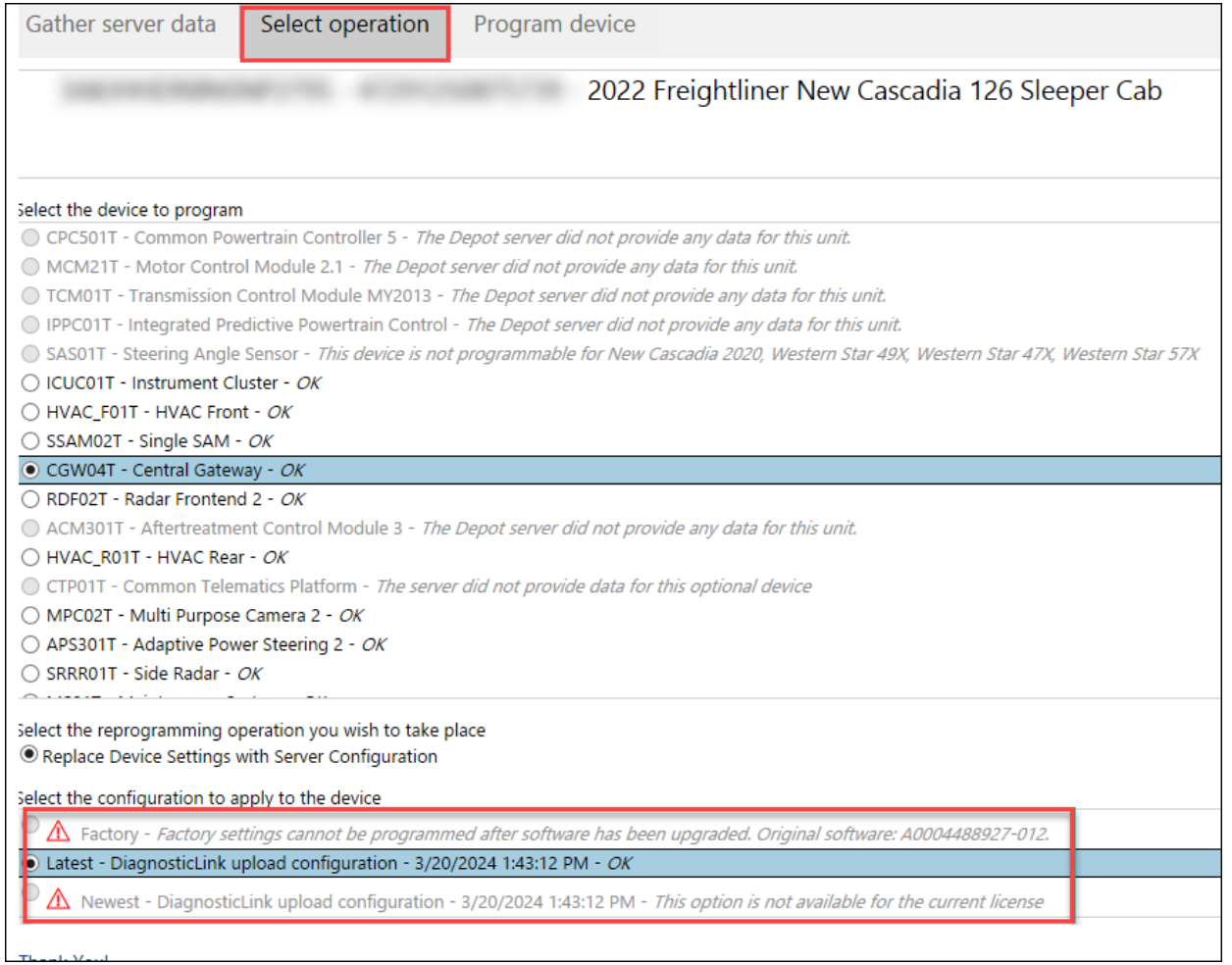
SID Version Displayed in Help About Box

- Added the SID version used by the application, to the Help > About box.



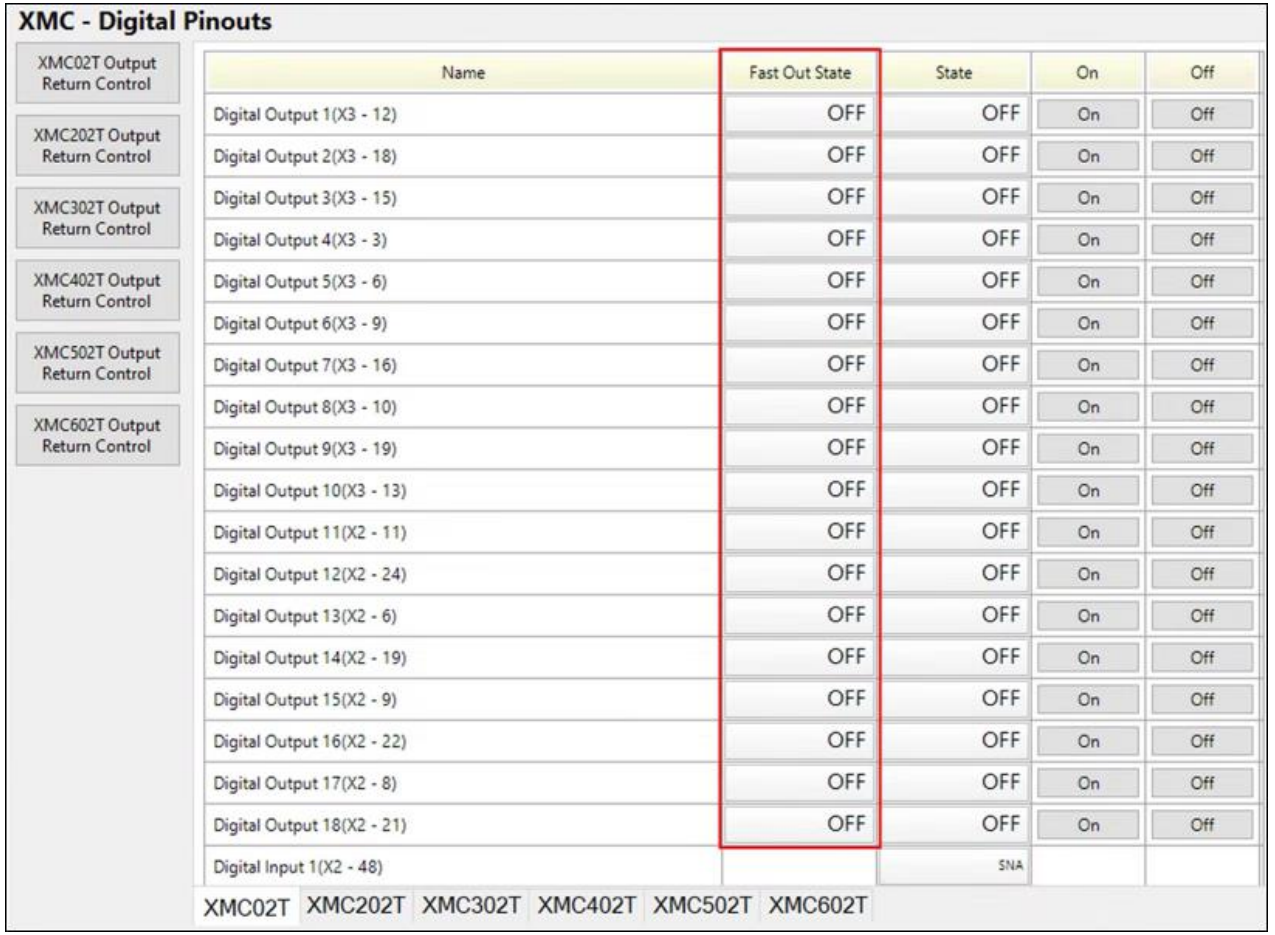
Program Option to ‘Newest’ Prohibited for Chassis ECUs

- When prohibited, the programming option to ‘Newest’ will not be available for chassis ECUs in certain scenarios.
- The tool will display ‘This option is not available for the current license’ on the ‘Select operation’ page.
- This feature is to assist in mitigating programming incompatible software.



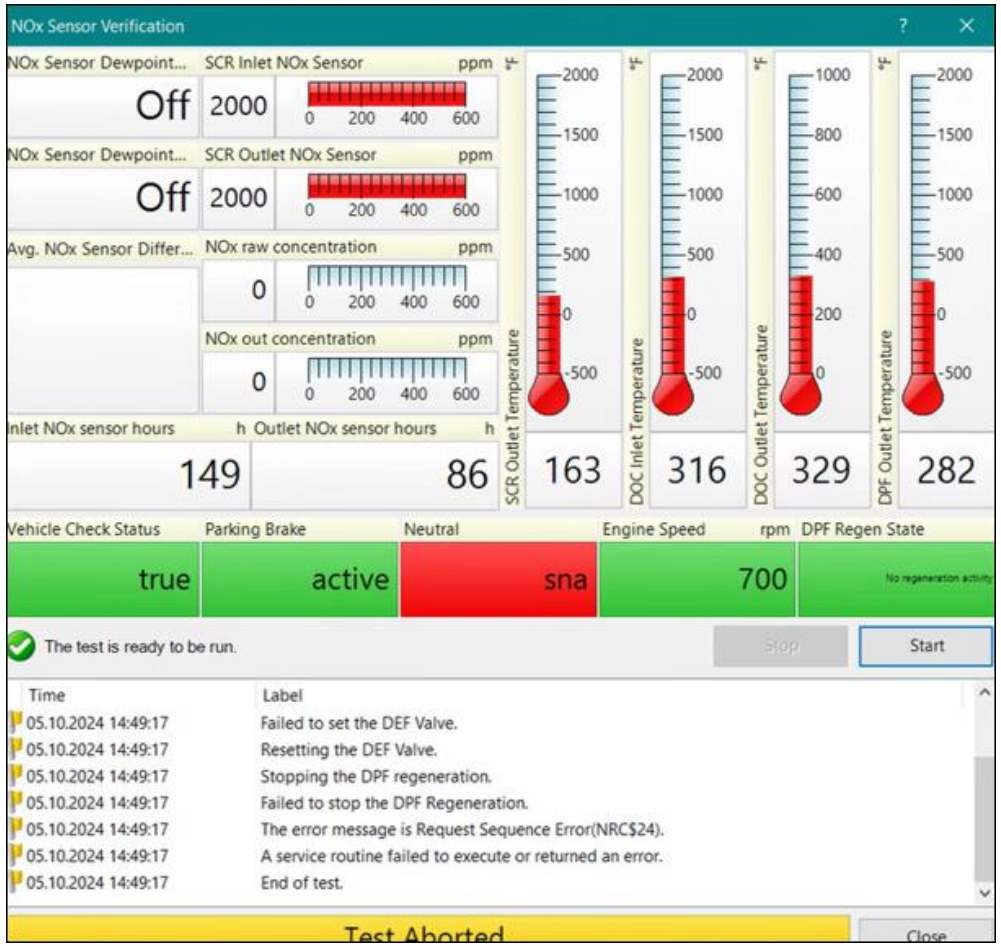
XMC-Digital Pinouts I/O Panel Modification

- ‘Fast Out State’ instruments has been added for new XMC Domain time sensitive output.
- Qualifiers:
  - DDFSC_FastOut0001_state through
  - DDFSC_FastOut0018_state



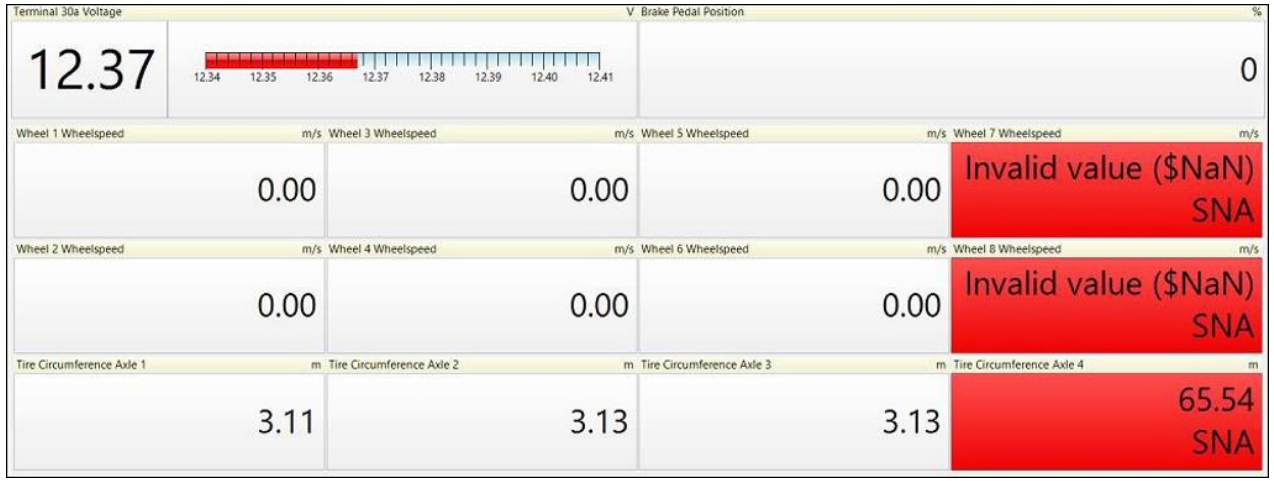
NOx Sensor Verification Panel Operation

- Resolved issue where the NOx Sensor Verification routine would not complete.
- The routine is now adapted to work for use with ACM301T.



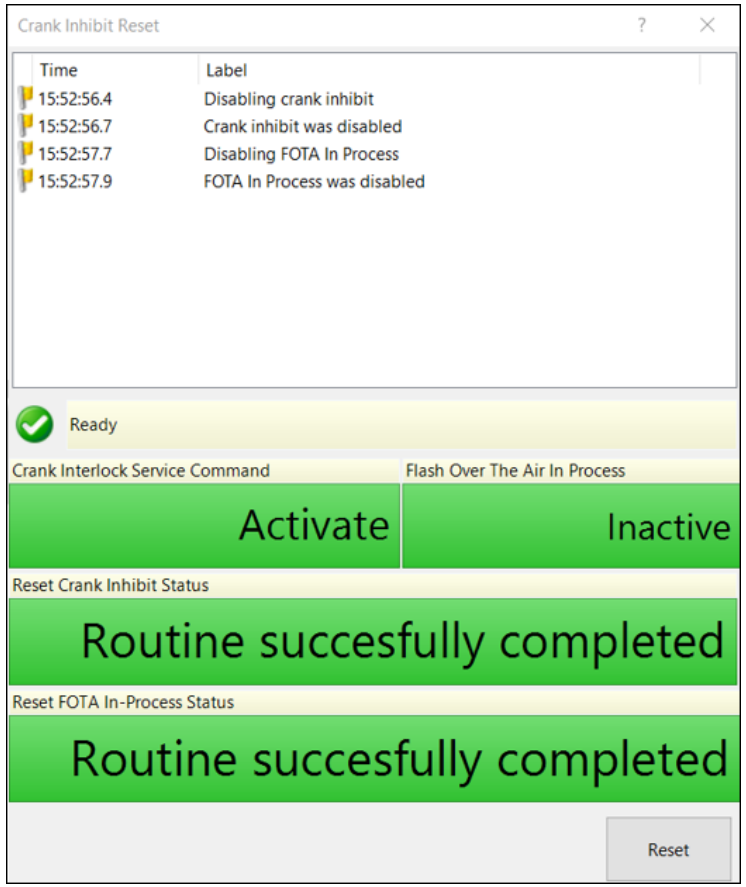
Anti-Lock Braking System Instrumentation Panel

- Anti-Lock Braking System Instrumentation panel has been added for SBSP01T.
- Brake Pedal Position and Wheel speed instruments that are not available will output as “Invalid value $NaN” and show the value “SNA” with the instrument highlighted in red.
- Tire Circumference that are not available will output with a default value of 65.54 and show the value “SNA” with the instrument highlighted in red.
- The instruments that display SNA highlighted in red is a standard with all instrument panels.



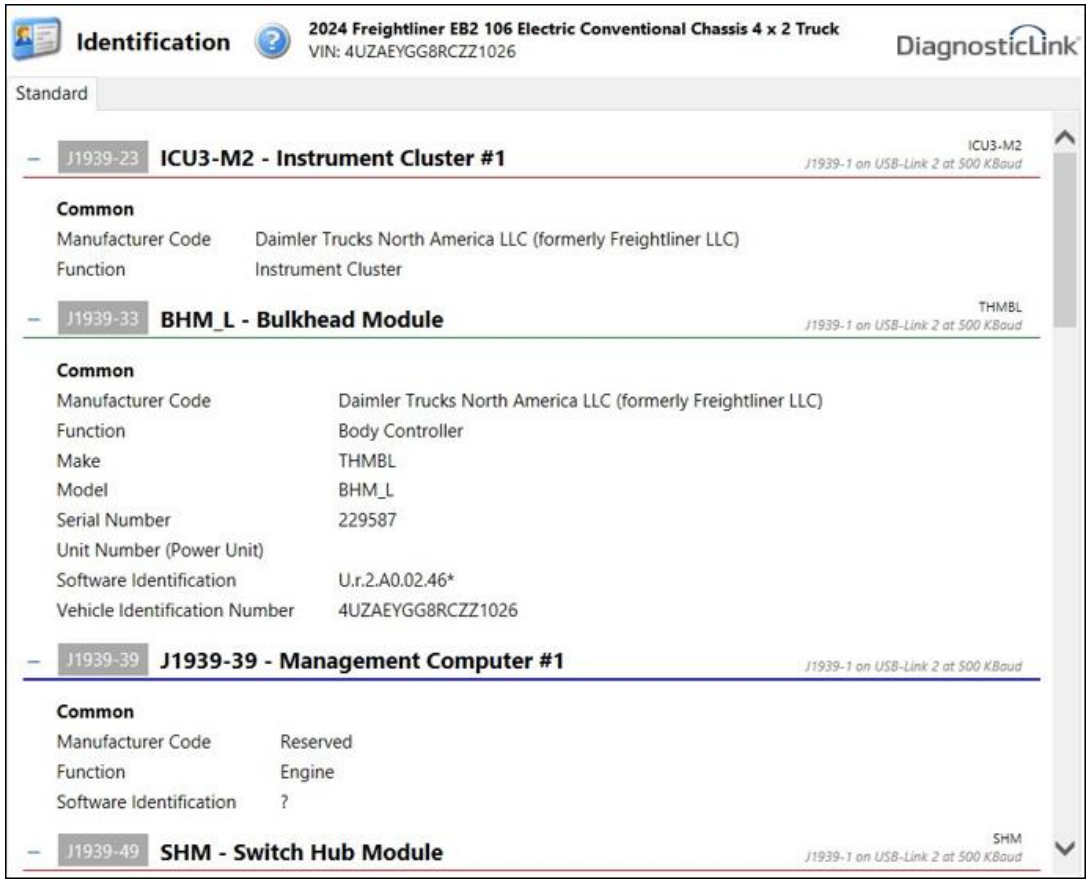
Telematics Panel Updates

- The Telematics panel has been updated to run services for CTP03T new hardware variants.
- The following services are executed when the reset button is clicked:
  - Reset Signal FOTA_Ign_InhbtCrk_Rq Start
  - Rest Signal FOTA_InProc_Stat Start



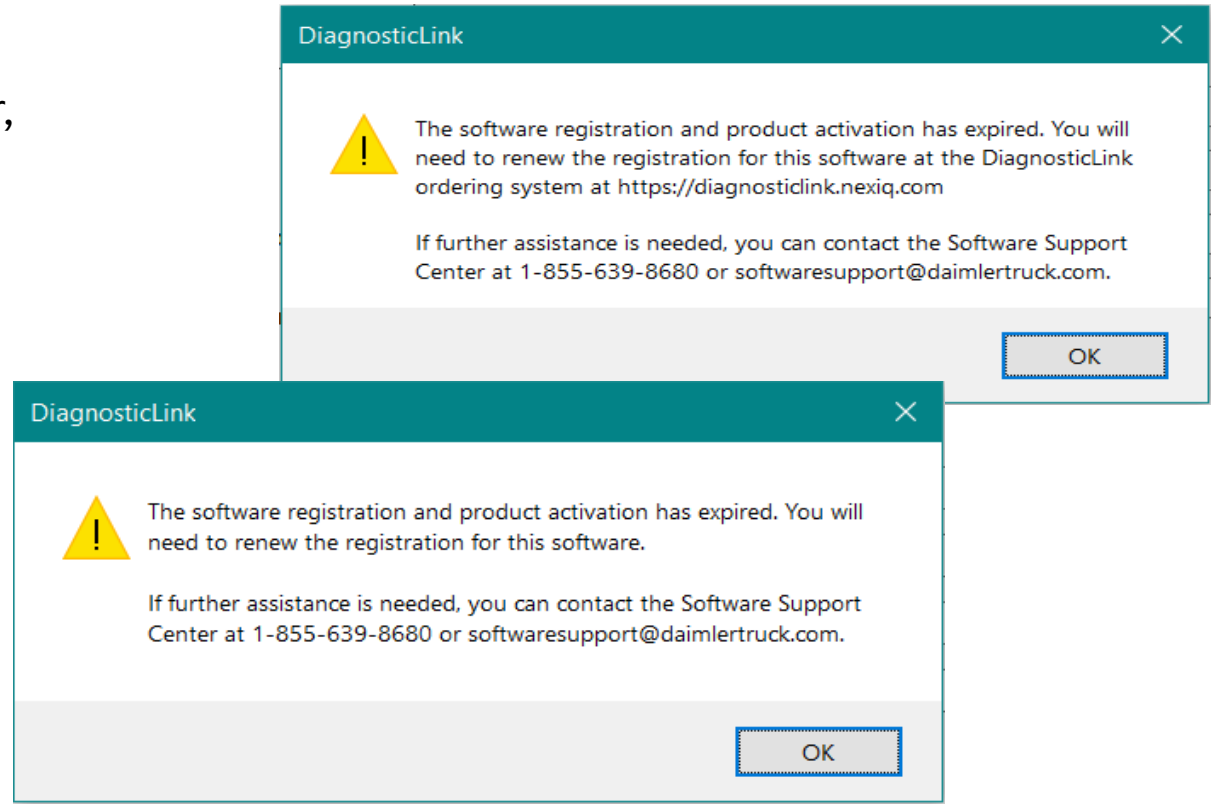
Initial display of DiagnosticLink may be empty

- Resolved issue where the initial display of DiagnosticLink® may be empty if the connected vehicle or fixture does not contain content assigned to the display within the ‘Common’ panel.
- All panels in the Identification view will now be shown or hidden according to the availability of contained content.



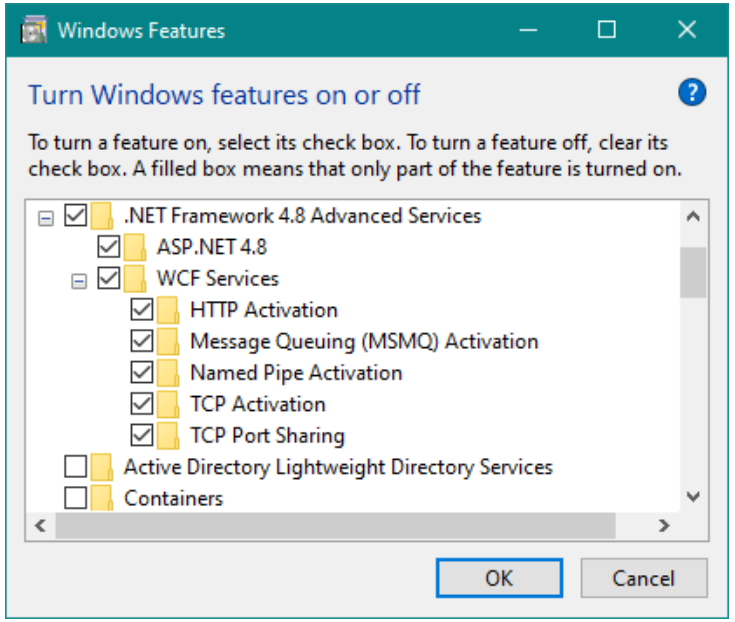
Registration message updated

- Updated the registration message to more clearly define the different scenarios (e.g., Corporate, Customer, Manufacturing use cases).



Microsoft .NET Framework 4.8 Required

- Microsoft .NET Framework 4.8 is required. Consult with your IT Administrator if needed.
- If Windows has been updated, the feature should already be installed. In rare cases, the feature may already be installed but not enabled. To enable:
  - Access the Control Panel.
  - Click Uninstall a program.
  - In the left menu, click on Turn Windows features on or off.
  - Click the (+) next to .NET Framework 4.8 to expand the session.
  - Check the options .NET Framework 4.8 advance services, ASP .NET 4.8, and WCF Services and click OK.



AFTERMARKET
DRIVING THE UPTIME REVOLUTION

EV Diagnostics Update

06/6/2024

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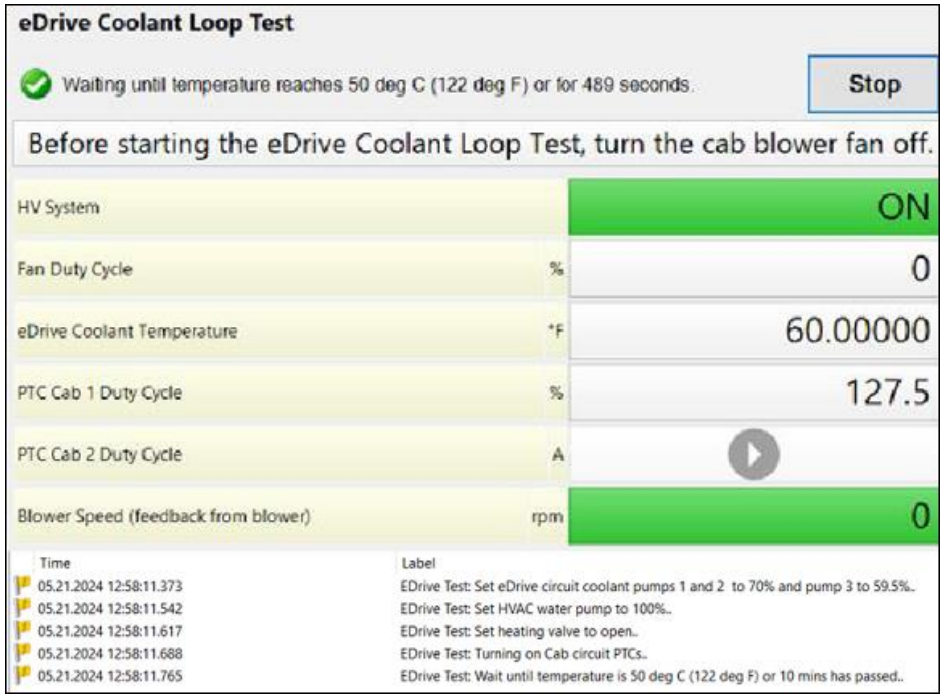
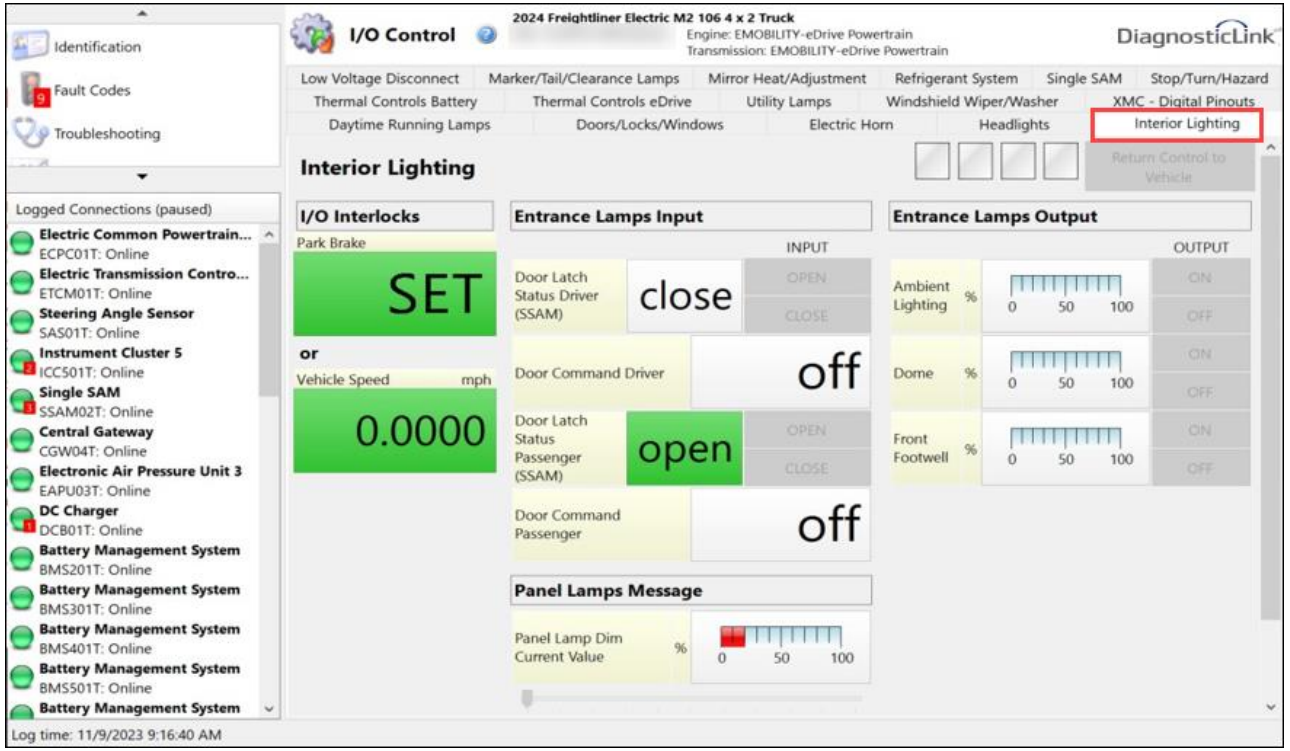
eDrive Coolant Loop Test Panel Update

- The Coolant Systems Pressure Test panel has been updated to make the diagnostics functional.
- The panel becomes available once connected to ECPC01T.
- Functionality performed for Battery Coolant Loop Test:
  - Starts battery 3X2 way valve routine
  - Sets battery circuit coolant pumps to 70%.
  - Turns on PTCs to 100%.
  - Wait until temperature is 38 deg C (100.4 deg F) or 5 mins has passed.
  - Turn off PTCs.
  - Stop the battery 3X2 way valve.
  - Set battery circuit coolant pumps to 0% when stopped.



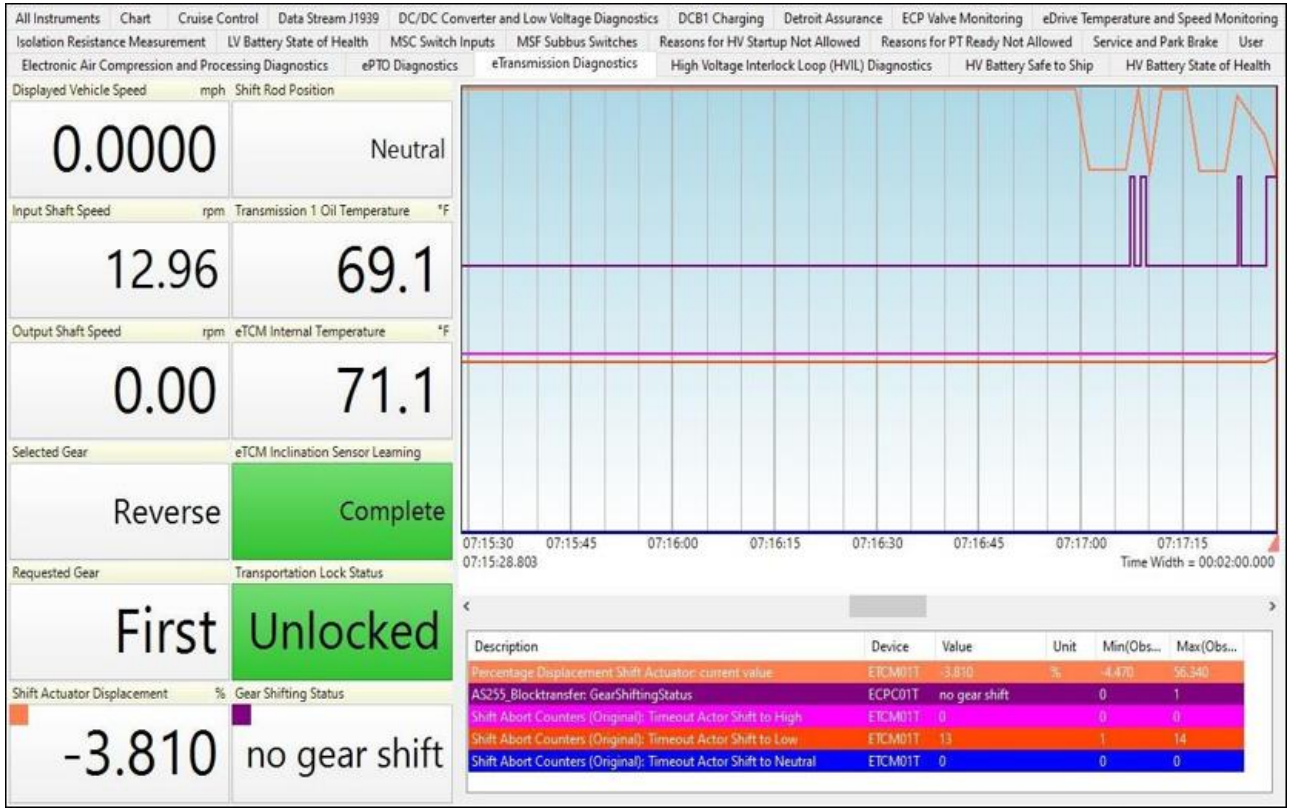
Interior Lighting (EMG) Panel Updates

- Interior Lighting (EMG) panel updated.
- The diesel version of Interior Lighting and Backlighting panels are not displayed when connected to an EMG truck.



eTransmission Diagnostics Instrumentation Panel

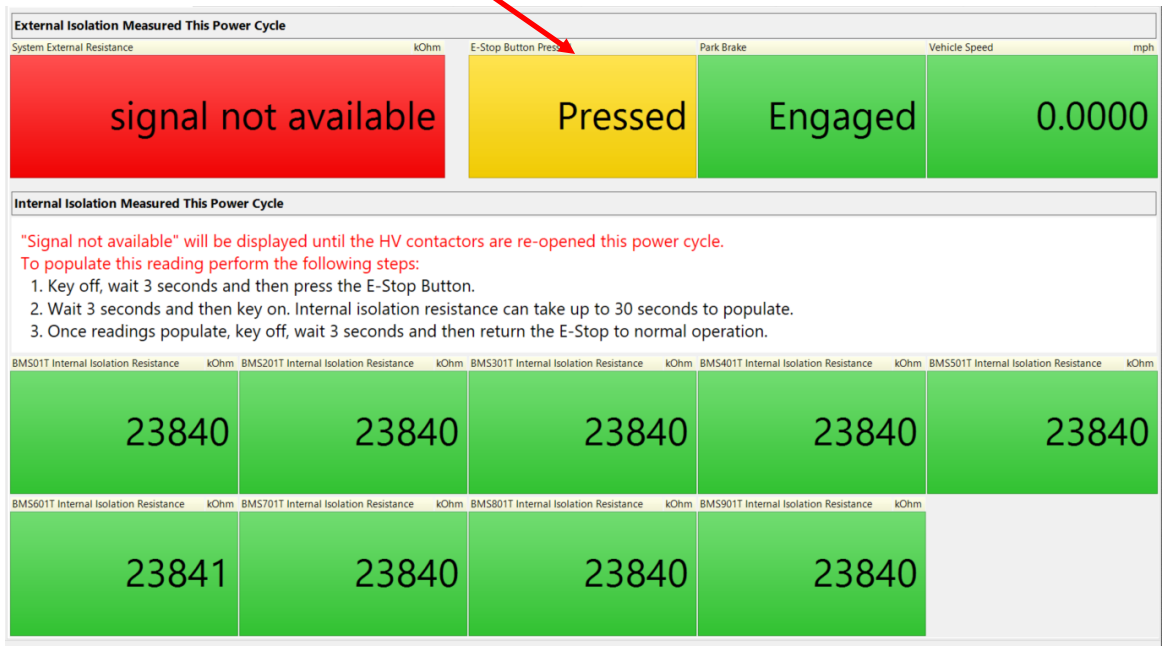
- The Selected Gear display instrument now uses the SSAM02T MSC: Stalk Switch Driving Mode to supply its valve.
- Added the following ETCM instrument valve to the panel: ‘Transportation Lock Released’, ‘Gear Shifting Status’, and ‘Shift Actuator Displacement’.
- Added the strip chart display for the instrument values for graphical interpretation.



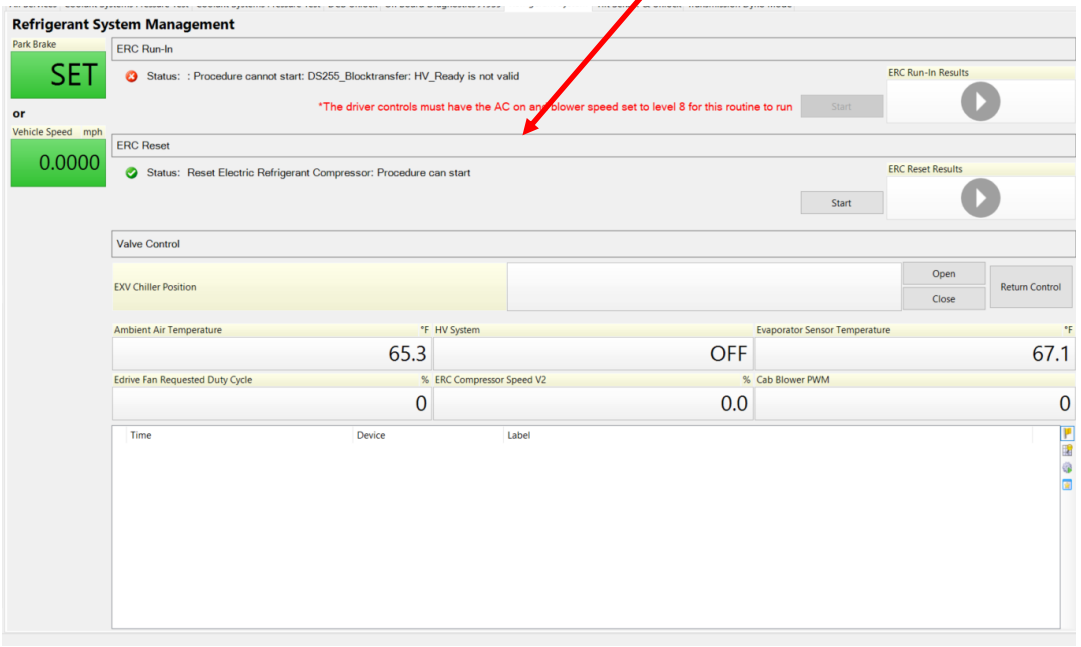
DiganosticLink v 8.20 EMG Panels Update

- Correction to Isolation Resistance panel
- Cab and chassis lighting panels revised
- Refrigerant Management moved to Service Routines tab

E-Stop Button Status Corrected



ERC Reset moved to this panel from a single function panel under the Actions tab

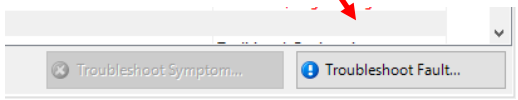


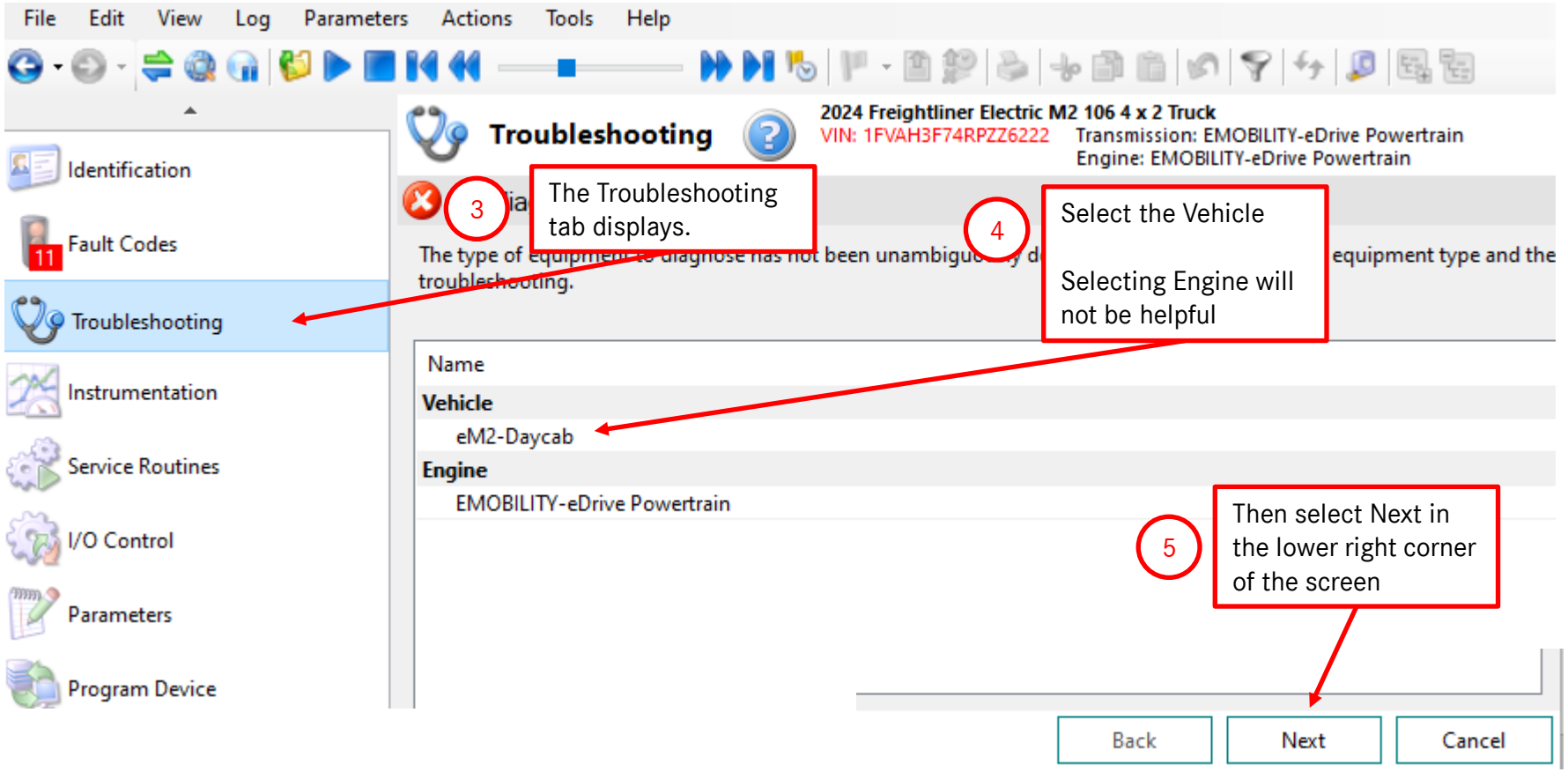
DiganosticLink v 8.20 EMG Troubleshooting Update

- Deep Links to Fault Code Troubleshooting

1 Select a fault code

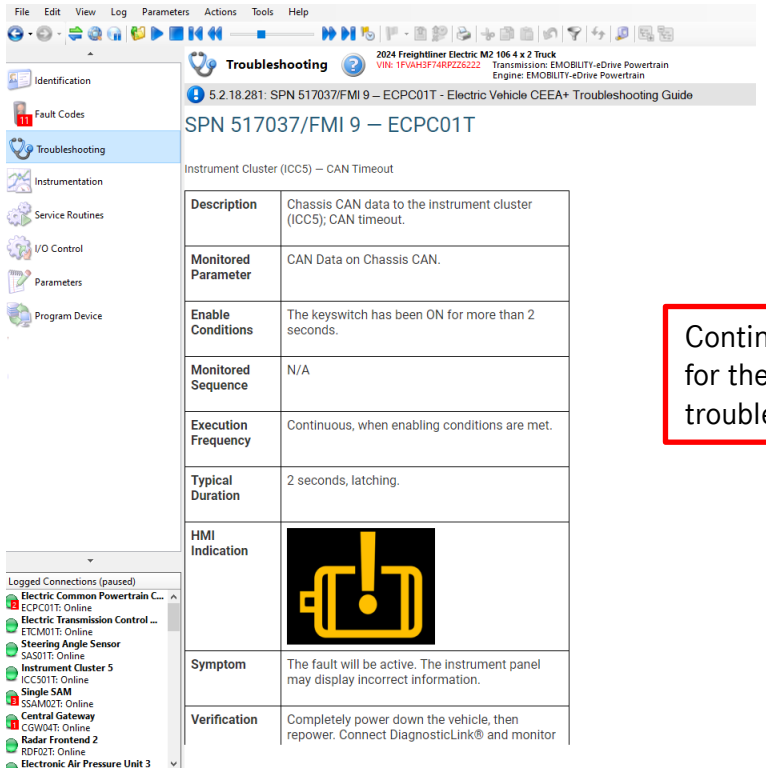
2 Next, select Troubleshoot Fault in the lower right corner of the screen





DiganosticLink v 8.20 EMG Troubleshooting Update

- Deep Link to Troubleshooting material, now published on TechLit site is displayed



Continue scrolling down for the complete troubleshooting material

CeBID Overview

6/6/2024

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CeBID = CyberSecurity Project @ DTNA (page 1)

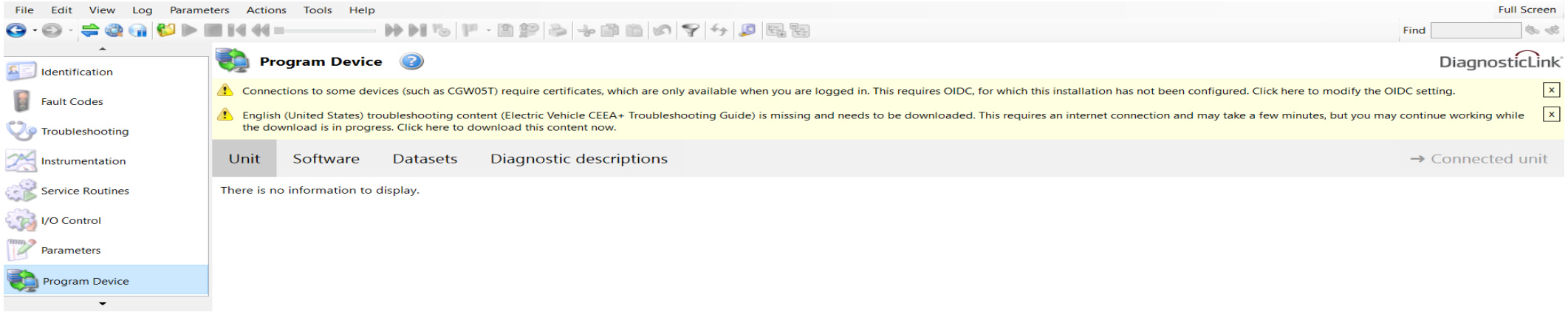
- CeBID is the project name for a complete system that protects Gen5 and future Daimler products
- Gen5 Cascadia critical ECUs will now have a layer of security to ensure neither inadvertent nor nefarious activities can not be performed on them
- DiagnosticLink requires approved Certificates from central servers to perform certain features on these protected ECUs

DiagnosticLink User Impact:

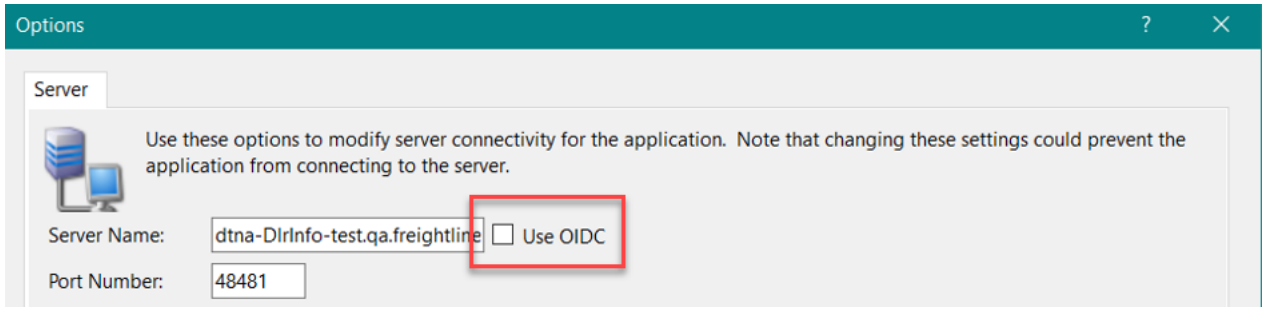
- Our role in Aftersales has been to push the technical solution so that there is minimal impact on our DiagnosticLink user base
- The server connection via OIDC authentication is required for CeBID secured products
- All current and new Single Sign On IDs, Passwords and User Roles have been (will be) ported from the current authentication system to the new OIDC system; therefore no need for Techs to learn new IDs/Passwords.
- The CeBID system is only required for new and future products starting with Gen5 Cascadia
- If **not** connecting to Gen5 Cascadia, the installed DiagnosticLink configuration will work as it does today
- If connecting to Gen5 Cascadia, the installed DiagnosticLink 8.20 configuration will need to be changed
  - An error will occur if DiagnosticLink is not configured to use OIDC (see image; page 2)
  - A new menu option is available to turn on OIDC usage when ready (see image; page 2)
  - A standard logon screen will display when required to login to obtain new/refreshed Certifications
  - It is not required to change this setting when future connections are made to pre-Gen5 Cascadia

CeBID = CyberSecurity Project @ DTNA (page 2)

- DiagnosticLink error when connecting to Gen5 Cascadia ECUs without having Certifications: (Error Text: Connections to some devices (such as CGW05T) requires certificates; which are only available when you are logged in. This requires OIDC for which this installation has not been configured. Click here to modify the OIDC setting)



- To turn on OIDC, check the option “Use OIDC” checkbox at menu: Tools→Options →Server
- Only required to do once per installation and when first connecting to Gen5 Cascadia



Thank you

6/6/2024

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