## Summary of Changes to LCC Documents 2024-07-22

## **New Documents for Public Comment**

S-9.7.4.6-TrainControl-2024-07-22.pdf TN-9.7.4.6-TrainControl-2024-07-22.pdf

S-9.7.4.7-TrainSearch-2024-07-22.pdf TN-9.7.4.7-TrainSearch-2024-07-22.pdf

S-9.7.4.8-FunctionDefinitionInformation-2024-07-22.pdf TN-9.7.4.8-FunctionDefinitionInformation-2024-07-22.pdf

## **Documents with Changes for Public Comment**

S-9.7.0.3-UniqueIdentifiers-2024-07-22.pdf TN-9.7.0.3-UniqueIdentifiers-2024-07-22.pdf

o Updates ranges for various train control systems: DC, DCC, TMCC, etc

S-9.7.0.4-EventIdentifiers-2024-07-22.pdf TN-9.7.0.4-EventIdentifiers-2024-07-22.pdf

- o Adds Train Search protocol event range
- Adds 11-bit extended DCC accessory address range
- Reformat some tables

S-9.7.1.1-CanPhysical-2024-07-22.pdf TN-9.7.1.1-CanPhysical-2024-07-22.pdf

- Add a section on Electronic Labeling
- Add a section on Injection Current
- Added discussion of CAN bit timing
- Standardize the use of ALT L/ALT H for the NMRA S-9.1.2 DCC signal
- Clarify discussion of gateways and repeaters

S-9.7.2.1-CanFrameTransfer-2024-07-22.pdf TN-9.7.2.1-CanFrameTransfer-2024-07-22.pdf

- Add to the behavior of the AME Message
- Fix calculation error in the example provided in the TN.

S-9.7.3-MessageNetwork-2024-07-22.pdf TN-9.7.3-MessageNetwork-2024-07-22.pdf

- Update the table of PIP bits
- Clarifies the content of the OIR message
- Clarified the discussion of priorities

S-9.7.3.1-EventTransport-2024-07-22.pdf TN-9.7.3.1-EventTransport-2024-07-22.pdf

Add Events with Payload

S-9.7.4.1-Configuration Description Information-2024-07-22.pdf TN-9.7.4.1-Configuration Description Information-2024-07-22.pdf

- The size of integer variables is restricted to 1, 2 or 4 bytes
- Define signed vs unsigned behavior of integer variables
- The requirement that unused bytes in a String variable be set to null has been removed
- Addition of float variables
- Discussion of possible ways of representing group names

S-9.7.4.2-MemoryConfiguration-2024-07-22.pdf

TN-9.7.4.2-MemoryConfiguration-2024-07-22.pdf

- Remove the write-size bits in the Configuration Options Reply
- Add stream reads to a Configuration Options Reply bit

S-9.7.4.3-SimpleNodeInformation-2024-07-22.pdf TN-9.7.4.3-SimpleNodeInformation-2024-07-22.pdf

• Update how the two data blocks are versioned

## **Documents that have not changed since 2021-04-25 (for completeness)**

There were no changes to these documents since 2021-04-25 but they are included here for completeness

TN-9.7.0.1-Glossary-2021-04-25.pdf

TN-9.7.0.2-CommonInformation-2021-04-25.pdf

S-9.7.3.2-DatagramTransport-2021-04-25.pdf TN-9.7.3.2-DatagramTransport-2021-04-25.pdf

S-9.7.4.4-FirmwareUpgrade-2021-04-25.pdf TN-9.7.4.4-FirmwareUpgrade-2021-04-25.pdf

S-9.7.4.5-BroadcastTime-2021-04-25.pdf TN-9.7.4.5-BroadcastTime-2021-04-25.pdf