

**NMRA DCC Working Group Meeting
July 8, 2004 Seattle**

- * Introductions
- * Discussion of WG operations & draft TN-2004-1 (Topic 0403131)
- * Brief review of existing list of topics
- * Streaming Mode Programming (Topic 0405221) - Gil Fuchs
- * New Decoder Register Matrix (Topic 0307121) - Reinhard Muller
- * Mechanical Interface - Reinhard Muller
- * Wiring of the Small Connector - Reinhard Muller
- * Revisions of RP-9.3.1 and RP-9.3.2 (Topics 0309301, 0309302) - Stan Ames
- * Decoder Lock Proposal (Topic 0305051) - Bob Jacobsen
- * Service Mode Decoder Lock (Topic 0307122) - Stan Ames
- * Any Other Business

July 1, 2004

Topic 9910241 - Analog Output Instruction

This is an Advanced Operation Instruction (001) to control various analog functions. The first intended use was to control volume.

Topic 0107122 - User Defaults

Topic 0104191 - CV Table Structure Proposal

Topic 0304231 - Additional Mfg CVs for Accessory Decoders

David Nickolson of ZTC has proposed adding CVs 542-544 to the Manufacturer Unique area starting at CV 545.

Topic 0305001 - Medium Plug Enhancement

Roco has several different proposals to expand the Medium connector in locomotives to support more functions. S-Helper Service has also enhanced the medium plug.

- A counter-proposal was discussed to include a function interface (ala SUSI)
- More information is needed about pin assignments
- A suggestion was made to use a second connector for functions
- A suggestion was made to use a JST connector for additional functions (not the 9-pin in current use), and that this connector should include a serial interface

Topic 0307121 - New Decoder Register Matrix

Rutger Friberg has proposed changing the way CVs are accessed and organized.

Topic 0305051 - Decoder Lock Proposal

AJ Ireland of Digitrax posted a proposal for a new method of programming multiple decoders in a single locomotive.

Topic 0307122 - Service Mode Decoder Lock Proposal

Bernd Lenz, on behalf of a new manufacturer, is proposing an additional Service Mode instruction to prevent the programming of decoders in low-end systems where there is no separate programming track. The new instruction prevents reprogramming of decoders which implement it during service mode operations on the main track. This proposal also eliminates a conflict between RP-9.2.1 and RP-9.2.3.

Topic 0307161 - Clarification of sequence of Multiple Protocols

An additional comment was received about command stations and decoders supporting more than two protocols (i.e. DCC, Bi-Directional, Motorola), and what order that they should be in.

Topic 0307162 - Transition Sequence for Multiple Protocols

As a corollary to Topic 0307161, a comment was received about adding a possible transition sequence before changing to an alternative protocol in multi-protocol systems. An separate proposal was received to add a requirement in S-9.2 that all multi protocol operations end with the second half of a zero bit. This improves backward compatibility and resynchronizes the DCC signal.

Topic 0307163 - Glossary

A proposal was received to convert the Draft Glossary document to a Technical Note.

Topic 0307165 - Clarification / Rewording of RP-9.2.1 and RP-9.2.2

Many comments were received about the complexity of the new instructions in RP-9.2.1.

Topic 0309301 - RP-9.3.1 Revision

Proposal to change transmission rate in RP-9.3.1 from 125kbs to 250kbs and update other aspects of the RP.

Topic 0309302 - RP-9.3.2 Revision

Proposal to open up a second optional transmission window in RP-9.3.2 for broadcast and update other aspects of the RP.

Topic 0403131 - Working Group Organization and Operation

The Working Group is revisiting it's organization and operational procedures. The result of this will be a Technical Note laying these out in some detail.

Topic 0405221 - Streaming Mode Programming

The Working Group is discussing possible protocols for loading data into a decoder via a streaming-mode protocol. The goal is to allow loading large volumes of data to a decoder over the rails without having to remove the decoder from the engine.