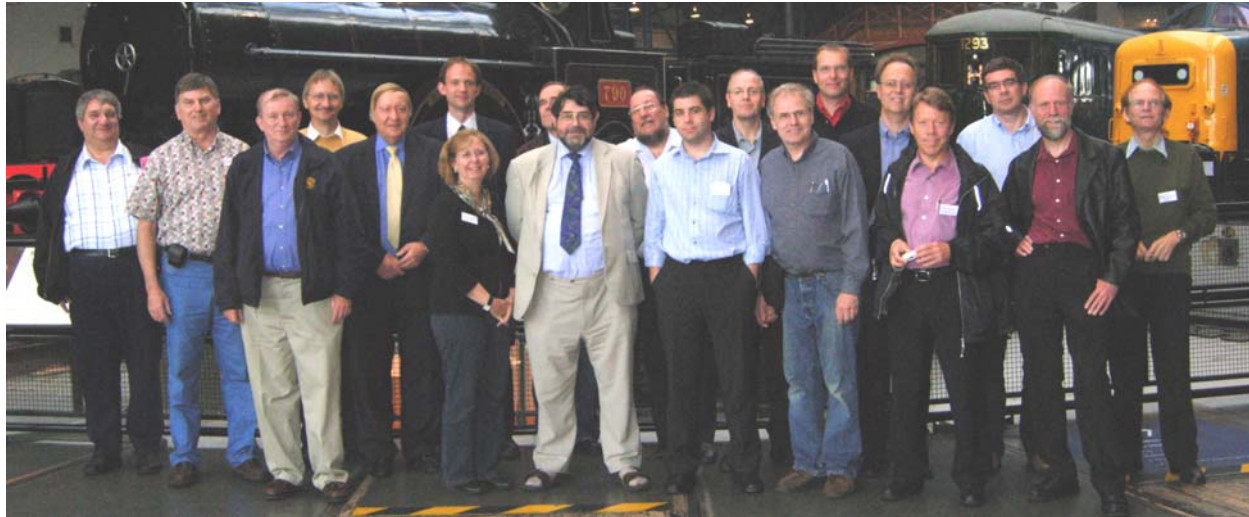


**Minutes of the  
NMRA DCC Working Group Meeting  
Date: Friday, 21 September 2007  
Location: York, England**



Left to right: Marcel Thomas, Didrik Voss, Lee Riley, Frank Grünig, Graham Hubbard, Tim Moore, Debbie Ames, Simon Kohler, David Nichol森, Jacques Bret, Trevor White, Reinhard Müller, Stan Ames, Kersten Tams, Richard Kopplinger, Uwe Riemann, Richard Matthews, Mike Bolton, Peter Ziegler  
In attendance:

Name	Company or Organization
Debbie Ames	Lenz
Stan Ames	NMRA Member
Mike Bolton	MERG
Jacques Bret	Mistral Train Models
Graham Hubbard	Bachmann Europe, Managing Director
Frank <u>Grünig</u>	Fleishmann
Simon Kohler	Hornby
Richard Kopplinger	Modelleisenbahn GmbH (ROCO)
Richard Matthews	Bachmann Europe
Reinhard Müller	NMRA Member, DCC European Coordinator
Tim Moore	Hornby
David Nicholson	ZTC Controls
Uwe Riemann	Bachmann Germany
Kersten Tams	Tams Elektronik
Marcel Thomas	CDF
Jack Treves	NMRA Member, MOROP Representative
Uwe Riemann	Bachmann Germany
Didrik Voss	NMRA Member, DCCMWG Chairman
Mary Kay Voss	NMRA Member, Recording Sec

Trevor White  
Peter Ziegler

ZTC Controls  
ZIMO

## **Welcome:**

Didrik Voss –Opened asking for suggestions for replacement of the DCC WG and handling the meetings.

There was a discussion on companies self-certifying their products. The forms for self-certification will be posted on the NMRA web site in the future. Until then, please contact Didrik Voss for the appropriate and latest forms.

There was also a discussion on the three conditions of C&I certification testing by NMRA and the obligation to not disclose the test results. Briefly, the C&I results of any product submitted before the product is on the market will not be disclosed to anyone except the submitting company. Once the product is on the market, C&I results can be disclosed.

There was a general discussion of developing a list of compatibility problems. This created some problems in the DCC WG several years ago. However, it was felt the DCC WG needs to start making a list of compatibility problems and methods for their resolution if we are to regain confidence of the modelers.

It was decided that compatibility problems should be sent directly to Didrik Voss for verification and sterilization before submitted to the group for discussion. This will help to reduce hard feelings between companies. It was also suggested to invite Owners and Moderators of Yahoo lists that deal with DCC products to submit a list of conformance problems for discussion. Didrik and Reinhard will invite comments from these groups.

Didrik asked if NMRA should clean up the use of the DCC Conformance Mark. There are some advertisers that use the mark as a header in their ads, which implies that every item in the ad conforms to the NMRA DCC standards. There was general support that NMRA should clean up the use of the mark.

## **Topic 0504023 and 0603242 – 21 Pin Connector and P LuX Connector**

Reinhard Müller: Jügen Lindner was coming, but had to go to China. I wanted him to say something about the 21 connector. I think it came out 3 yrs ago, designed for Marklin. At a previous DCC meeting it was decided to have another connector as well - now called the P LuX. I do not like having two connectors with the same size and capabilities. We have two approaches and I believe we need to put into RP-9.1.1. The 21 pin connector is currently on the market and is used by several companies already. The other, we'll hear about what they are planning. First samples have been produced and were passed around at the meeting. This is P LuX.

## **Topic 0709212 – 6 and 8 pin connectors phasing out**

There was a lengthy discussion on phasing out the 6 and 8 pin connectors. Reinhard will manage a vote on the Yahoo site asking for comments on phasing out these connectors.

## **Topic 0707092 – Large Scale Plug Pin Layout**

Stan passed the proposed pins around the room for inspection.

Stan: What is desired in large scale is a connector. A connector allows DCC, radio control, who knows type of control to be run inside loco and mfg can provide space, club connectors and dummy plug and we define any body plug and can work on after market. In large scale, nearly every mfg has their own plug. Named three mfgs – all use their own plugs. We looked at various plugs that people are using and concluded that Aristocraft plug was best. Chinese did not define which pins were defined. So if the new plug is identical to Aristocraft, but backward compatible, the decoder manufacturer should include short protection in their decoders to guard against random pin connections by the Chinese. The second approach is to change the spacing but this means the decoders are incompatible with existing products, but future is more well defined. We have chosen to cope with past and be aware of pins that are miss-wired.

It was decided to have Stan continue with using the pin assignments as proposed and to submit the wording for the RP.

### **New Topic 0709211 – Suppression Circuits – David Nichol森**

After considerable discussion on the problem with suppression circuits, it was decided to establish a new Topic. David Nichol森 volunteered to head up the effort.

### **Topic 0309032 – RP-9.3.2 Revision**

Peter Ziegler, Topic Leader, discussed the status of this effort. After considerable discussion, it was decided to prepare a draft copy of RP-9.3.2 for a vote of the DCC group. Stan Ames will assemble the RP by January 1, 2008. He asked that all information be sent to him by December 20, 2007 so he can use the holidays to finalize the draft. At the same time the draft RP will be posted on the NMRA site for comments by the membership. This timing, however, is insufficient to allow the final RP to be submitted to the NMRA BOD in for approval in January 2008. Stan Ames will work on a better schedule.

### **Topic 0603244 – Location Dependent Information**

Peter Ziegler: This project has been delayed due to other complications.

### **Topic 0603245 – DCC Testing Platform**

### **Topic 0603243 – Software for DCC Testing Platform**

Didrik Voss – PRICOM has dropped the project due to other commitments. NMRA will continue to use the existing testing equipment until further notice.

### **Topic 0603241 – New Packet Format**

Peter Ziegler – Nothing new.

### **Topic 0408251 – In-rush Current**

Arnold Hubsch is topic leader. Mike Bolton stated Arnold could not make the meeting and was unable to send Mike the information. Hopefully, Arnold's paper will be submitted to the DCCMWG in the near future for review. Stan Ames stated RP-9.2.3 should be modified so the service mode is energy based and not time based.

## Topic 9910241 – Analog Output Instruction

Reinhard stated he will contact Brian Barnt, previous Topic Leader, on how to proceed with this topic.

## Topic 0707091 – DCC Direct

Stan Ames discussed the splitting of the power and the DCC signal so a locomotive can be run from a battery and the signal can come from radio or through the track. David Nichol森 volunteered to assist Stan on defining power needs for decoders. The results will be posted on the DCCMWG site.

## Topic – Creation of Accessory Bus WG

Didrik Voss discussed the formation of the Accessory Bus WG. The name Accessory Bus is strictly a working name and not the final name of the intent of this group. In fact, a Conformance Mark has been applied for as shown to the right and is known as NMRANet.



Several attendees expressed concern that the DCC working group was splitting up with the formation of the Accessory Group and that there would be a lack of coordination between the two. Mike Bolton wanted to expand the purpose of the AccBus group to include commands for mobile decoders (locomotives). However, Didrik expressed concern that NMRA was developing a competitive command bus to current proprietary buses on the market (Digitrax, Lenz, NCE, Zimo) and he does not want to put NMRA in that position. Stan Ames suggested dissolving the DCCMWG and calling it the “Model Railroad Electronics Group”.

After listening to the discussion and suggestions on how to proceed with the AccBus group, Didrik has modified the purpose and goals of the AccBus group. The changes to the previously submitted goals are unlined.

1. Develop standards to define an accessory bus that will manage and control accessories that are not controlled by mobile decoders in a locomotive on a model railroad layout.
2. This bus will work along side of the DCC command buses currently on the market.
3. This AccBus may read and act on the DCC signal generated by existing command stations.
4. Developing a set of instructions to control mobile decoders in locomotives is outside the scope of this working group. However, the bus should have the capability to handle mobile decoder instructions for generating the DCC signal on the track. Development of instructions for controlling mobile decoders may be done in the future.
5. The AccBus will be owned by and under the control of the NMRA. All future changes to this bus will be controlled by NMRA.
6. Develop a bus that minimizes the amount of certification testing required of NMRA. Certification of this bus should not require special testing equipment beyond a computer and appropriate connections.
7. Maximum utilization of existing protocols and electronic equipment should be used to develop this bus.
8. Develop a set of NMRA Standards and Recommended Practices that fully define the characteristics of the AccBus which can be used by manufacturers to develop products.
9. Ultimately this bus will be named the NMRANet.
10. The DCCMWG will be kept informed on the development of this AccBus and be allowed to offer suggestions or comments on the system being developed.

This concluded the existing items on the agenda. Didrik opened the floor to new subjects or old subjects that needed more discussion.

The main subject discussed was interchange problems. This discussion included several interchange examples and the problems that were encountered. Didrik offered to be the recipient of any interchange problems.

Didrik also discussed several "White Boxes" being developed to simulate small, medium, and large layouts. Once these boxes have been thoroughly tested, they will be discussed in the group.

Didrik will also have 10 additional DCC Decoder Test Boards made for sale to the new decoder manufacturers. Jim Scores built the boards and Brian Barnt may have the diagram of the board.

The next meeting of the DCCMWG is Monday, 11 February 2008, at the Nuremberg Toy Fair. The meeting room is to be determined but may be the Bremen Room as last year.

The following two DCCMWG meetings are in Anaheim, California, US in July 2008 and in Mulhouse, France in September 2008.

The meeting was adjourned at 4:00 PM.

Didrik Voss  
Chairman, DCCMWG