OpenLCB / NMRAnet

Progress Report to NMRA Board Winter 2013

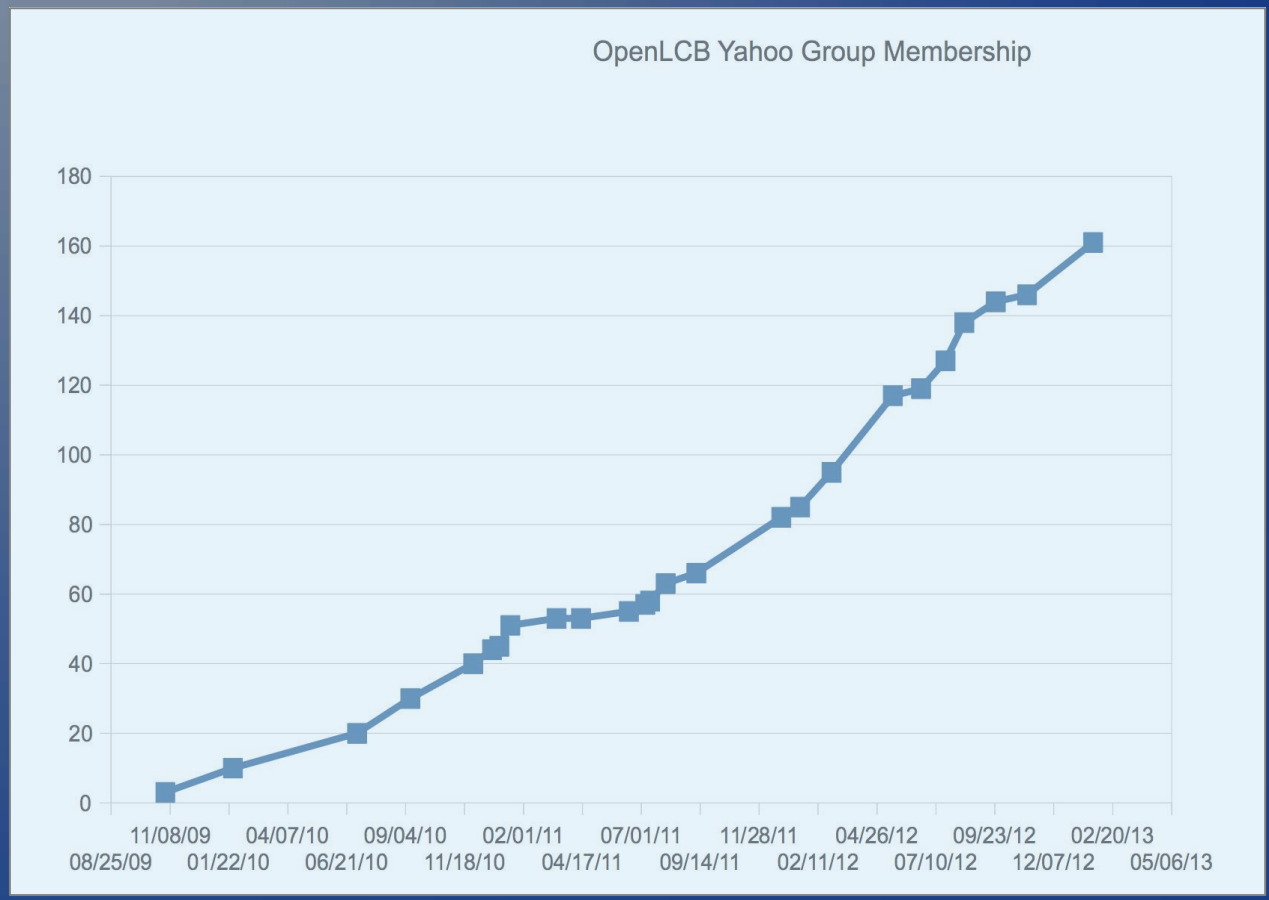
The Who

There are two groups developing and ratifying the NMRAnet Standards:

- OpenLCB Development Group which uses an egroup and Sourceforge to develop these.
- NMRAnet Group which uses an egroup and the NMRAnet webpages to publicize and review proposed NMRAnet Standards documents.

Participation

Membership in the OpenLCB egroup continues rise above 160 members. The NMRAnet egroup has 52 members.



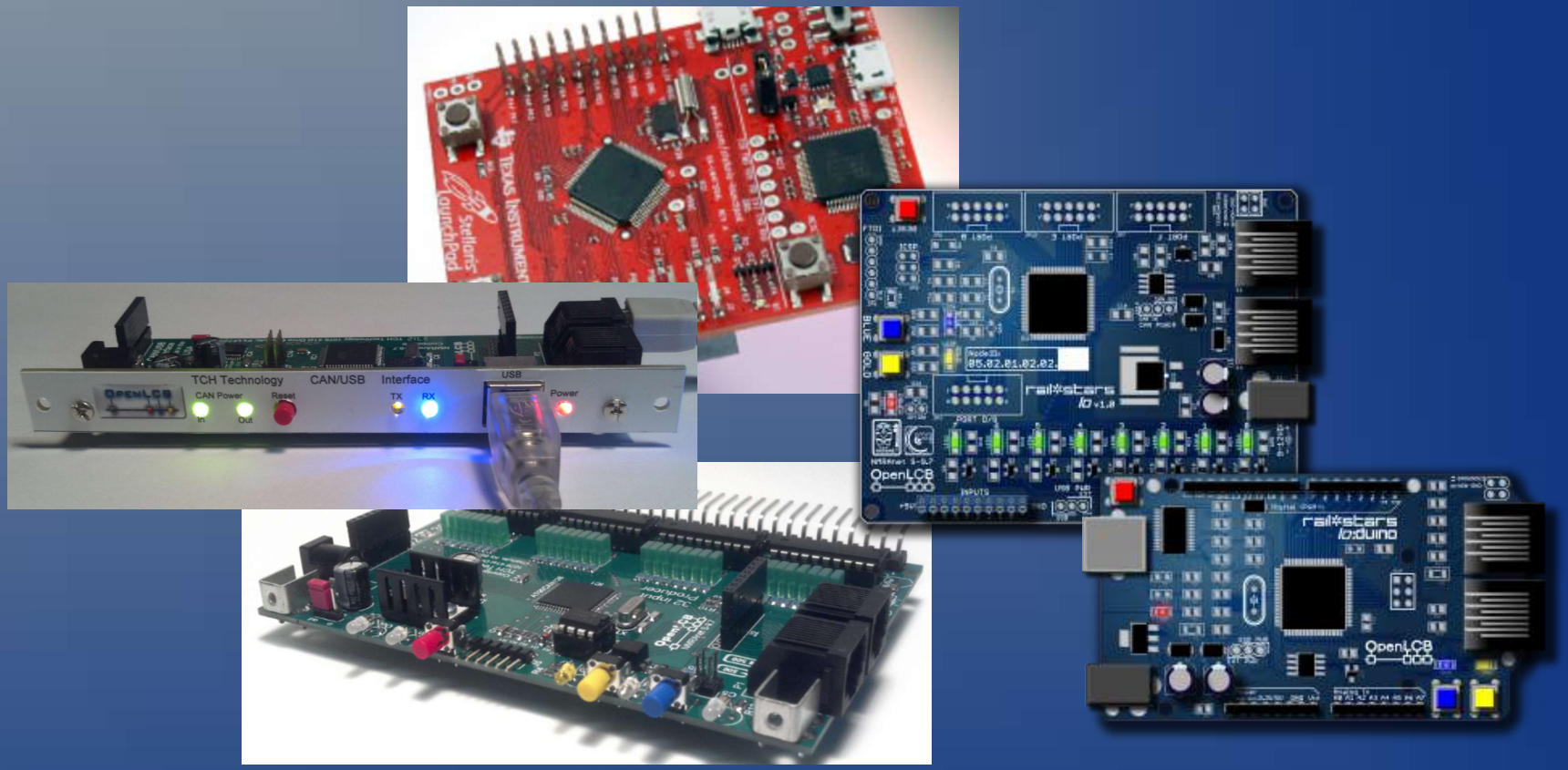
The Process

- The OpenLCB Development Group designs and documents standards and supporting technical notes, and develops reference hardware, firmware, and software.
- As the standards are completed and adopted, they are forwarded to the NMRAnet website and egroup for public comment and discussion.
- The Standards and other documents are forwarded to the NMRA Board for adoption, after these two groups have negotiated any changes and are in agreement, .

Activities -- NMRAnet / OpenLCB DevKit

The development kit was designed, built, assembled, and distributed around the world, including USA, Canada, New Zealand, Australia, Holland, Spain, Denmark and the UK.

Activities - Hardware

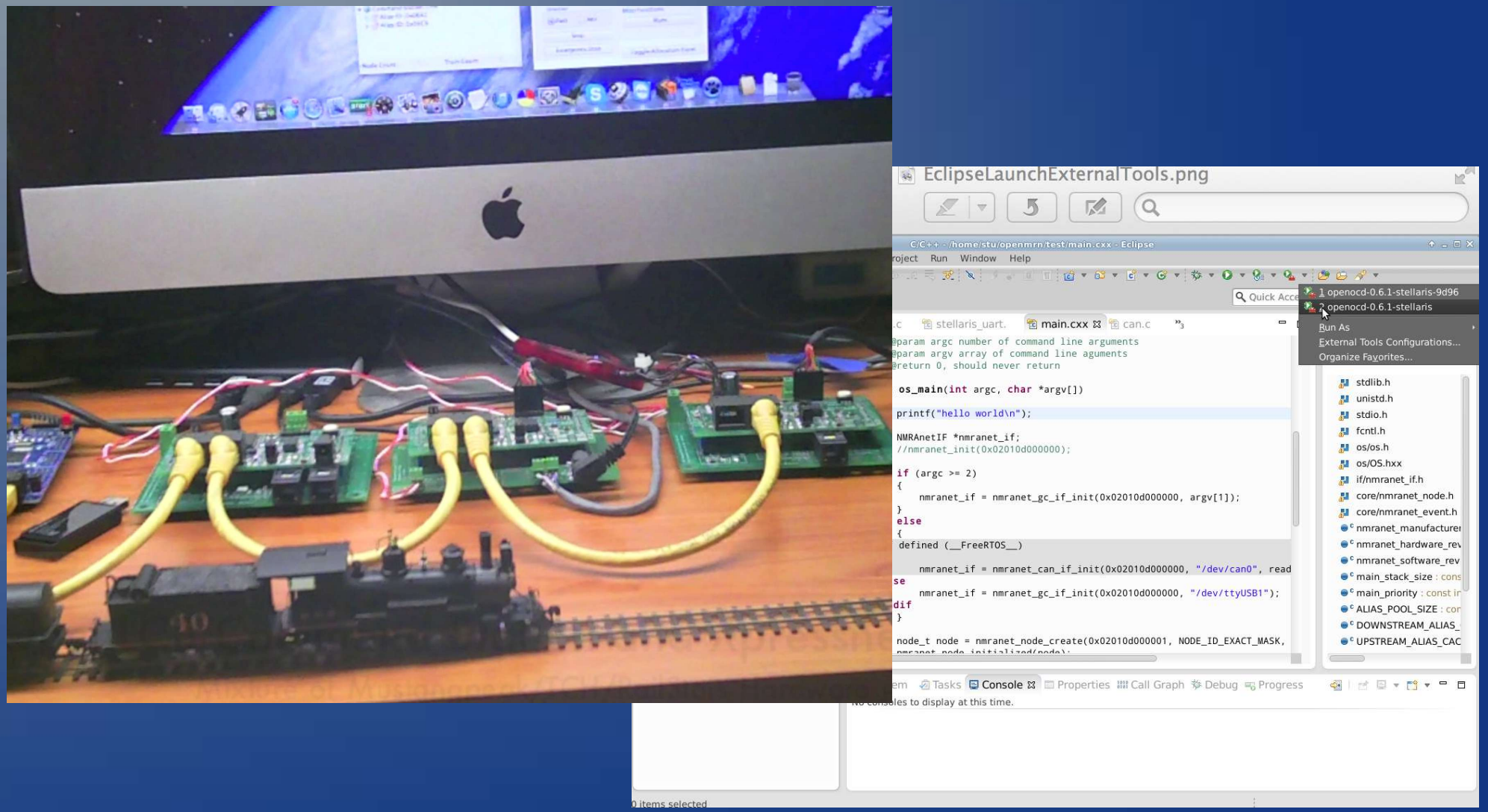


Activities – Software/Apps

Activities - Shows

- NMRA 2012 Grand Rapids
- Springfield 2013 Show
- New Zealand AMRA Show

Activities – Software/Firmware Development



Articles

“NMRAnet” in the NMRA Magazine, by Don Goodman-Wilson:

NMRANET

article by Don Goodman-Wilson and photographs by Stephen M. Priest, MMR

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MRAnet works in
of virtual “wires”

that you can use to connect sensors and actuators in any conceivable combination. Sensors — what we call “producers” — sit on your layout and watch for a layout event, perhaps a block becoming occupied, a turnout moving into position, or a button being pressed. Once an event of interest is detected, the producer produces an event report that is broadcast to the entire layout. Actuators — what we call “consumers” — watch for these event reports. When the consumer sees an event report it is configured to watch for, it can then take some action, perhaps setting a signal aspect, moving a turnout, even starting an animation, or changing the lighting in the room. But this is only the start.

This flexibility is worthless if it can't be easily configured. NMRAnet is designed from the ground up to make configuration easy. Most NMRAnet boards will have a simple built-in interface for configuring producer-consumer relationships. For more complex configuration tasks, however, every piece of NMRAnet hardware contains all the information necessary to create an easy-to-use interface for its configuration. Currently, JMRI has built-in NMRAnet configuration tools, but watch for support in RocRail and apps for your smart phone and tablet too.

Top: NMRA President Ch
importance of S9.7 at an

Left: David Harris (fore
enjoy operations the N
Layout. Every element
by NMRAnet modules.

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We're very ex
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control. Welcom
railroading!

Opposite page top: Don Goodman-Wilson gives an introductory clinic on NMRAnet at the 2012 Grand Rapids meeting.

Opposite page bottom: Railstars Io, hard at work on the NMRAnet Demonstrator Layout. Io is the first of soon to be many commercially available NMRAnet modules

Right: Brian Dayat, Don Goodman-Wilson, and an interested con-
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TCH
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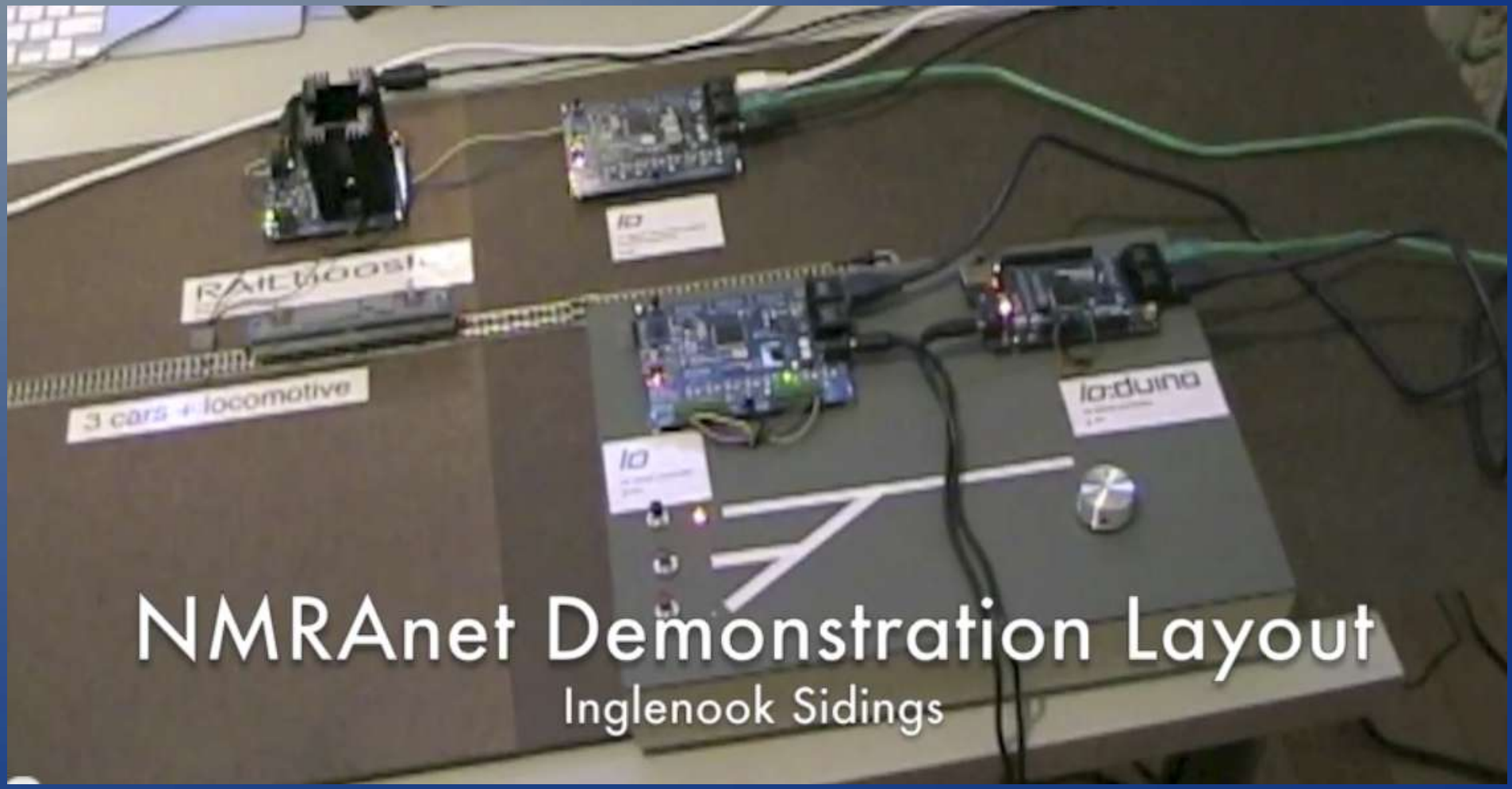
NMRAn

The NMRA successfully trademarked

NMRAnet®

With help from some early NMRAnet adopters.



Today

For INFORMATION:

The OpenLCB Development Group has completed a package of Standards and Technical Notes, which it has forwarded to the NMRAnet egroup to review.

This package is expected to be presented to the NMRA Board, at their meeting at the 2013 National Convention in Atlanta, for their consideration for adoption.

NMRAnet Standards

Previously PASSED:

- S-9.7.1 NMRAnet® Physical Layer Standard
- TN-9.7.1 NMRAnet® Physcial Layer Technical Note

NMRAnet Standards, Cont'd

SUBMITTED to the NMRAnet group:

- General Common Information TN
- General Glossary TN
- Unique Node Identifiers TN
- CAN Frame Transfer S/TN

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NMRAnet Protocols Cont'd

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- CAN Frame Transfer S/TN
- General Event Transport S/TN
- General Datagram Transport S/TN
- Message Type Indicator Allocations Table

What is Needed from the NMRA

Promotion --

- Clinics
- Advertisements and notices in NMRA magazine
- Follow-up articles

Superstructure --

- Testing and licencing
- Link to NMRAnet from the NMRA website

OpenLCB / NMRAnet

The
End