

OpenLCB / NMRAnet

Progress Report
to
NMRA Board
Winter 2013

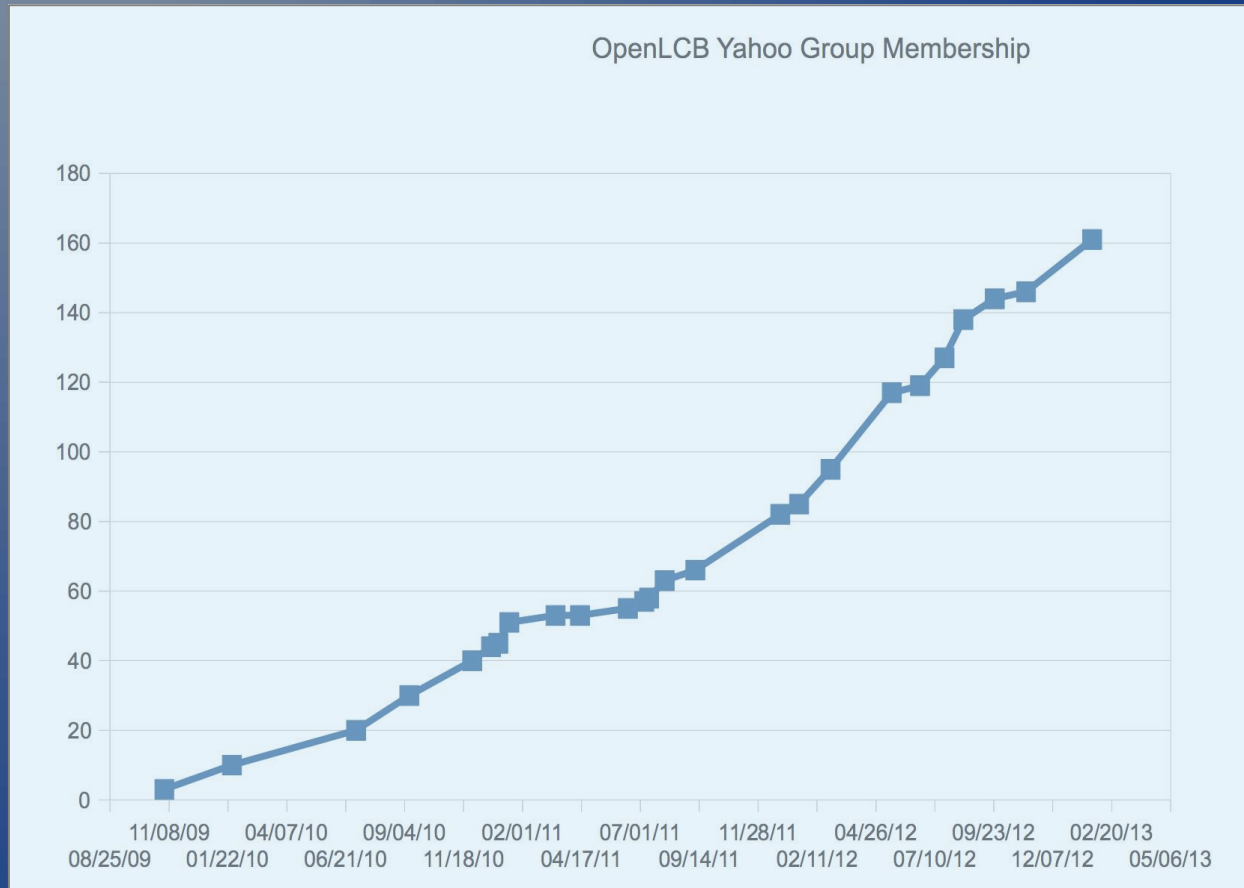
The Who

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.



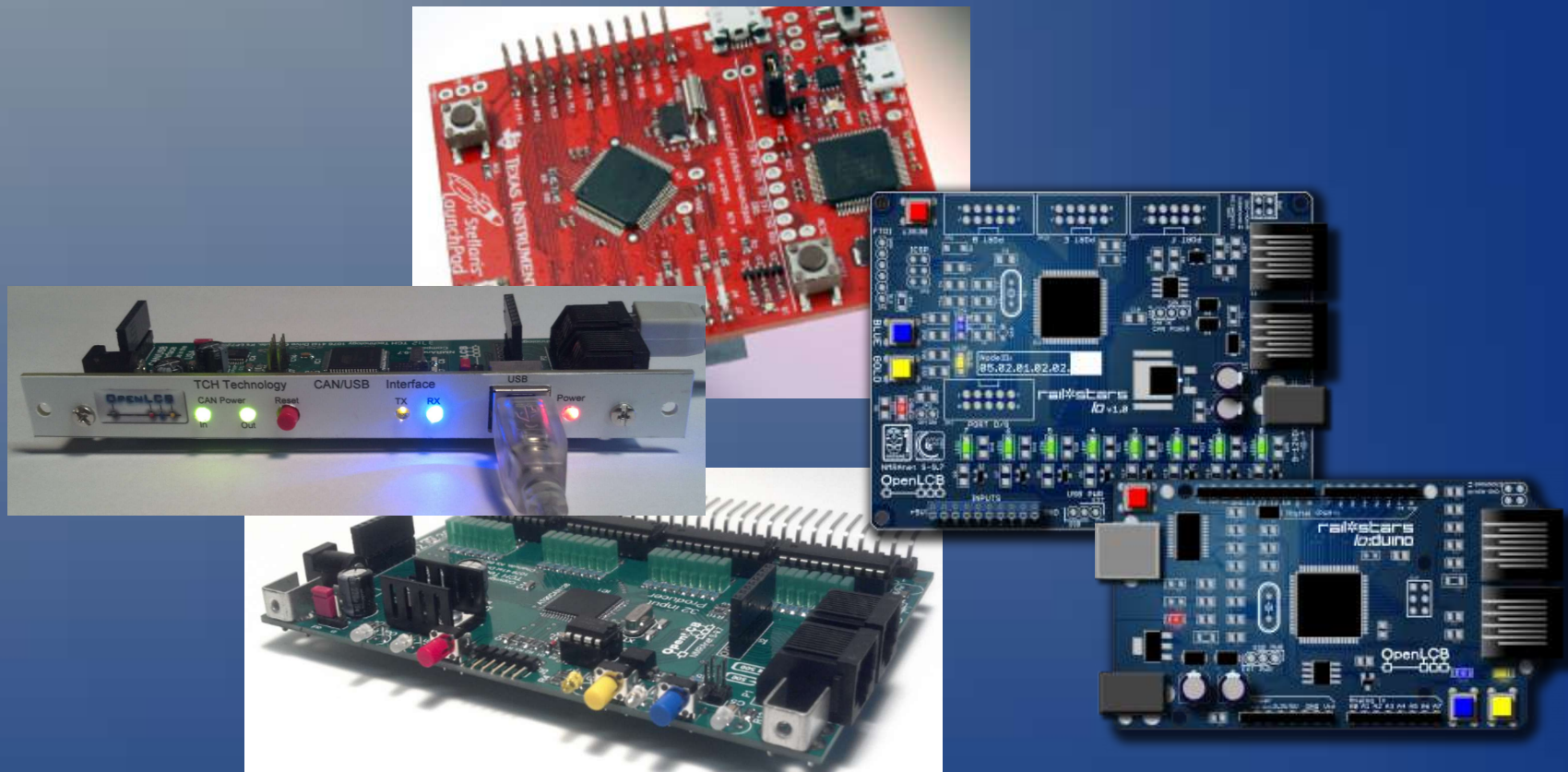
The Process

- 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, .

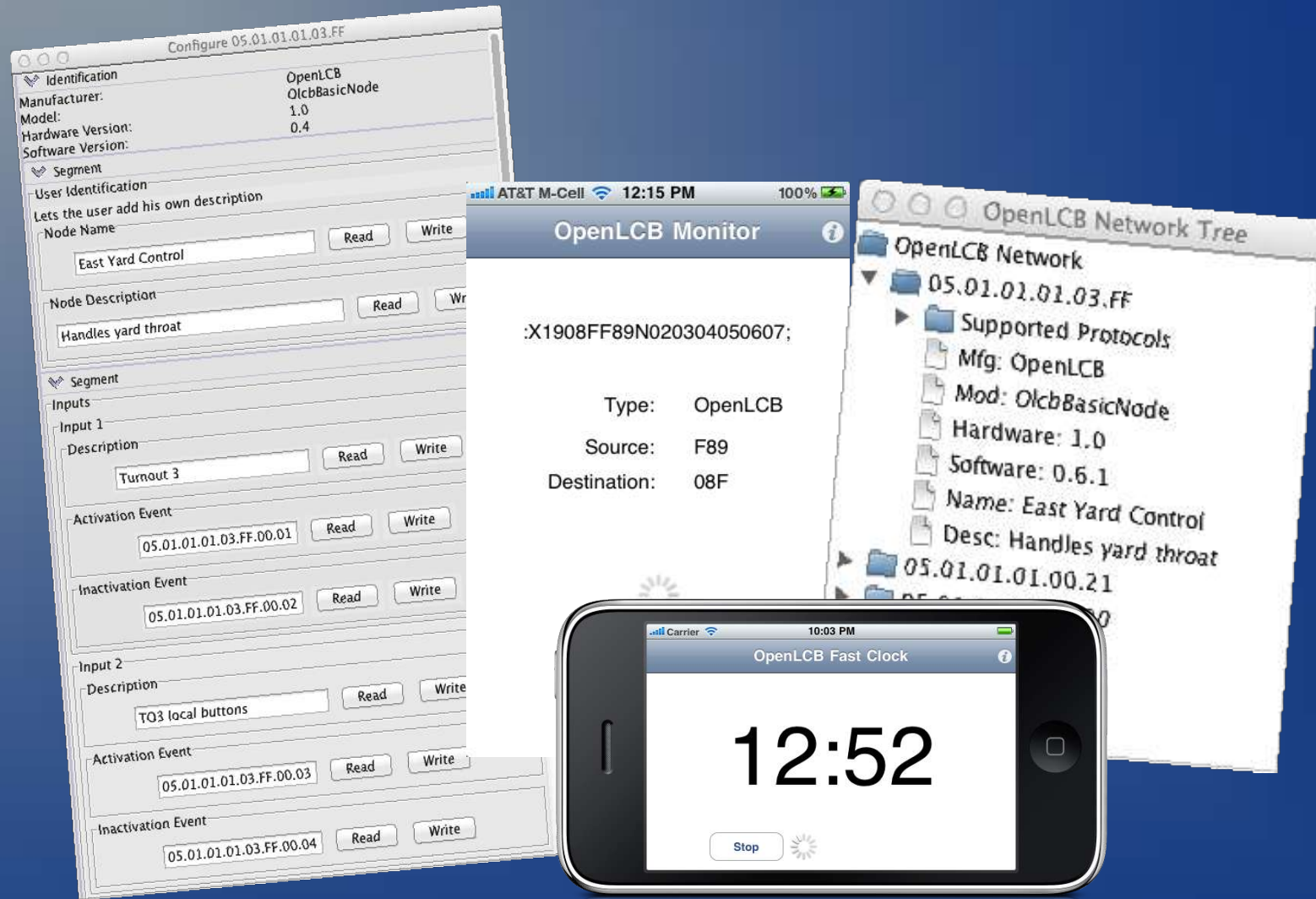
Activities -- NMRAnet / OpenLCB DevKit



Activities - Hardware



Activities – Software/Apps



Activities - Shows

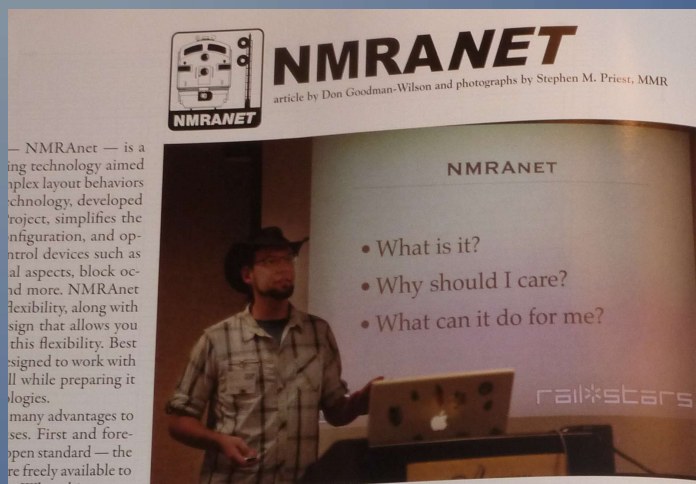
- NMRA 2012 Grand Rapids
- Springfield 2013 Show
- New Zealand AMRA Show



Activities – Software/Firmware Development

Articles

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



— NMRAnet — is a
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project, simplifies the
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flexibility, along with
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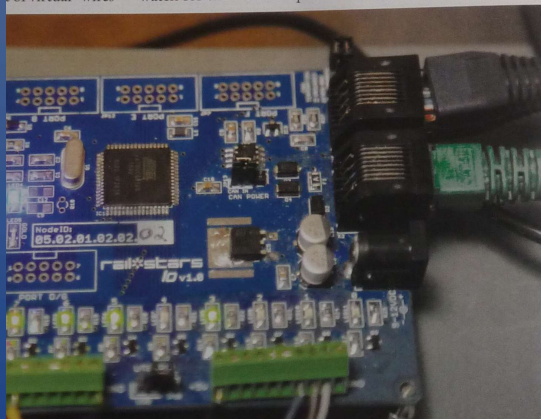
precedented flex-
MRAnet works in
of virtual “wires”

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 config-
ured to watch for, it can then take some ac-
tion, 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 inter-
face for configuring
producer-consumer
relationships. For
more complex con-
figuration tasks,
however, every
piece of NMRAnet
hardware contains
all the information
necessary to create
an easy-to-use inter-
face for config-
uration. Currently,
NMRAnet has built-
in NMRAnet config-
uration tools, but
watch for support in
RocRail and apps
for your smart phone
and tablet too.



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

Opposite page bottom:
Railstars 10, hard at
work on the NMRAnet
Demonstrator Layout.
10 is the first of soon to
be many commercially
available NMRAnet
modules

Right: Brian Dorst,
Don Goodman-Wilson,
and an introductory
clinic on NMRAnet at
the 2012 Grand Rapids
meeting.



Top: NMRA President Ch...
importance of \$9.7 at an

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

it is designed to wor...
and DC, DCS, Sele...
trains. NMRAnet i...
ticular train control...
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pensive gateways, y...
continue using you...
throttles.

We're very ex...
tial NMRAnet ho...
control. Welcome...
railroading!

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 Protocols

Previously PASSED:

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

NMRAnet Protocols 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

SUBMITTED to the NMRAnet eggroup:

- 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

More promotion --

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

Superstructure --

- Testing and licencing
- Link to NMRAnet on NMRA website

OpenLCB / NMRAnet

The Bus with Legs!

