

Three Lakes Model Railroad Club
Volume 2, Number 3
$1^{\text {st }} \mathbf{1 0 0 \%}$ Club in Wisconsin
Mar 2011

DCC Classes: Saturday March $26^{\text {th }}, 10$ AM and Saturday April $\mathbf{2}^{\text {nd }} \mathbf{1 0 A M}$ Rhinelander Library

Paul A. Wussow will present two classes on DCC beginning at 10 AM on Sat Mar 26 and Sat Apr 2 with a target to be done by noon. The challenge for Paul is to address the needs of a wide spectrum of knowledge. Some know little and others know quite a bit. Thus, we insert a handout by Paul to pickup where we left off in the last class. The two clinics should build upon each other and will be joint meetings of the RRA and TLMRC. Guests are invited; hence, bring a friend.

## Connecting \& Protecting Your DCC Investment by PA Wussow

When a model railroader decides to move from DC to DCC it is a costly step. In this article I hope to provide information to help the molder protect the investment while maintaining enjoyment of the hobby.

We will start with a simple layout having two mainline cabs and one yard cab with provisions for operating at least two trains at a time on the main lines and two trains in the yard. I will use the NMRA Achievement Program minimum layout as an example.


AP EE 4-2


For conventional DC wiring, five electrical blocks that can be controlled independently. Provide one mainline passing siding, one reversing loop, wye, turntable, or transfer table. Have a yard with a minimum of three tracks and a switching lead independent of the main line with facilities for the storing of at least two unused motive power units.

If you have a layout running DC with blocks using block control switches that select the throttle that controls a given section of track, you are well on your way to have a layout with DC and DCC.

If your block control uses Double Pole Double Throw switches and you have gaps cut across each rail at the block-to-block transitions you are not running common rail. If you use Single Pole Single throw switches as shown in the drawing, like the Atlas block control switches, you have a common rail system with only one rail cut at the blocks. This is ok for now but as you build out your DCC system you may wish to remove the common rail and add power feeds to each rail.

One of the first things to do is to test your DC layout on each throttle to be sure that there are no shorts and that all the wires and connected and operating correctly. When the layout is operating without problems on DC you are ready to add a DCC
system. If you are using common rail it is time to remove both DC power supplies and throttles. This is to avoid the possibility of shorts or ground loops that could destroy your DCC and maybe your DC system. If you do not have common rail and are careful not to run trains across blocks between DC and DCC you may keep one DC throttle hooked up but it is taking a big risk.

For Starting out in DCC there are a number of sets of equipment that are relatively inexpensive and will operate a small layout. The NCE Power Cab and the Digitrax Zephyr are good starters that allow you to learn and operate DCC and still be able to expand and your layout gets larger.

With DCC you will have a power supply that will supply the current to run the train and operate the digital control circuits. The power of the starter systems run between 2.5 and 3 amps while full system boosters may be purchased at 5 amps or even 10 amps (for large scales).

With your DC transformers removed from the layout circuit you may set all the block switches to one cab and connect the track connection from your DCC system in its place. The layout is now $100 \%$ DCC so be sure you have removed any DC locomotives, as they will look like shorts on the system.

Now it is time to place your new DCC locomotive on the track and give it a try. Most locomotives come preprogrammed with a short address of 3 or 03 when they are shipped. So let's place the new loco on the track, turn the system on and select locomotive 3.

If your locomotive has sound you may hear it as soon as you turn on the DCC system but you must select the locomotive (3) to control the sounds.

Now the big test, advance the throttle and watch the locomotive move down the track. Turn on the headlight and if you have sound ring the bell and blow the horn. Welcome to the digital world your running DCC.

With one locomotive having the starter system and the locomotive at address 3 will work fine but as you add locomotives you will want to program the locomotive's number into your system and adjust other features. But for now enjoy your DCC operations. By the way the reverse loops, wye or turntable will need polarity control that you used in DC. We will cover automatic control alter in this series.

Next time I will start with basic programming.
This article should serve as the handout for the first of two DCC classes with some possible carryover into the second class. Please make a copy and bring it along. Thanks. PAW

The flight into Brussels was excellent. Weather was pleasant. We had arrived at our hotel downtown by 9 AM . It was 59 F or 15 C in the morning and about 72 F by mid-day and 65 F as we strolled about the city at night in our quest for a perfect meal. We always attempt to schedule flights so as to depart Chicago at an hour that finds arrival in Europe by mid-morning, after the 'rush-hour'. Then, we wander the city, tire ourselves, fill ourselves and have a good night's sleep. We came to bike and understand transport systems.

My first impressions of Brussels were: folks were trimmer: more statues than home: fewer pigeons and other birds: many languages but mostly French: the town is a mix of the very old, the poor and the normal: the downtown looked nice, not lavish, not poor, not dirty, just nice: hotel beds are twin and pushed together: many restaurants were clustered in the center of town in the business district where we would live. Clean, quiet and neat.

Some in Brussels were discussing a new light rail system. Now, in 2011 plenty of light rail is on order from Bombardier. I'd encourage you to look at their plans involving a couple of hundred trains and also the tools used in decision making. Bombardier has an energy plan they believe improves consumption by $20 \%$ via an analysis of routing, scheduling, speed, power supply flows and fleet performance. They use 3-D models simulating drag much like an aerospace analysis. Bombardier invokes driver-training modules to save energy. Capacitive capture of energy during braking is designed to allow catenary-free operation for limited distances. Other design options produce a catenary-free system to improve aesthetics. An active radial steering bogie for increased speed and reduced wear on both rail and wheel sets is in the works. In short, Brussels bought an improved system. The catenary-free system is in use on one side of the estuary. This is impressive. Service is smooth and easily understood (although one of our group lost a credit card in the automatic ticketing machine).

Our gals were interested in Lace. Funny, guys like lace too. Here they look at a lace shop.


The day included the obligatory stop for lunch at an outdoor café. Over one hundred statues adorn buildings dating from the 1600 's surrounded the city center. Food and drink, while adequate was pricy. It was akin to going to a professional baseball, football, or basketball game without athletes. We did see some remarkable bodies none-the-less. I've since been told it is impolite to stare.

Brussels is a hilly city. As such it has
reason to have streets that wind around obstacles. Cobblestone and bikes aplenty are stashed in a variety of racks around town. Cobblestone adds a dimension of bounce that is unaccustomed.

Dinners at 18 Euros each included a bottle of wine and complementary brandy for all. Quite fine: we had fish, muscles, steak and lamb. It took two hours to consume the meal. Dining always seemed to take two hours give or take. It was a production that began with wine and breads. Then soup or salad followed by a main course. Desert preceded an after dinner drink or coffee. Coffee is strong and bitter. They load it down with sugar and milk. It is awful and generally costs 2 to 3 Euros.

My overall impression was a desire not to leave. To that end I wrote the following poem:
A Brussels Lament: by R.G. Blocks, June 6, 2007
This city is modern: with stone, steel and glass
And designed for rail, bus and auto to pass.
It's a harmonious contusion
Or perhaps an illusion,
That few places actually surpass.
We're in Brussels on the sixth of June
Each eve spent under a near full moon. Licking foam off fine pilsner beer And then making both disappear
Like our stay here: ending far too soon.


Rail is important to the economy. By Euro star it is less than 2 hours to London and 85 minutes to Paris. We rode surface rail to the central rail station and from there to Waterloo on intercity rail. They had to eliminate almost all cars from the city center to achieve this sort of walk, bike, light surface rail and intercity rail mass transit scheme.

Members of the TLMRC : (as of January 10, 2011) :(list purged July 2011)

Please note: The NMRA has requested (in July 2011) that all lists of members no longer appear in publications of the various clubs within its purview. Thus, in keeping with the desire of the senior body we have eliminated all lists of members in past written publications (done in July 2011) and will avoid publishing lists of members in the future.

All publications prior to July 2011 will be purged of any member name lists by August 2011.

We regret if such publication caused anyone a problem. If so, we'd like to hear of it. As of July 30, 2011 there have been no reports of problems of the membership.

Respectfully, ed.
Please note: We are a $100 \%$ NMRA club. Several guys are nearing the end of their membership periods. Please take care of your dues with national. If you have a problem (as in no magazine) let me know and we'll help.

## Railroad Happenings: or semi local coming events..

March 20, 2011-WISE Division Meet-Country Springs Hotel Waukesha, WI www.wisedivision.org "Basic Wiring", by R.G. Blocks, P.E. 3PM

March 26, 201110 AM Rhinelander Railroad Assn, DCC Clinic at Rhinelander Library 106 N Stevens St 10 AM - Noon, Instructor: Paul A Wussow, 715-546-3791 PaulWussow@,WindyPines.net (joint meeting)

April 9-10, 2011-10th Annual Model Train Show- Menomonie Middle School Menomonie, WI Info Call: (715) 505-4044

April 15-17, 2011- NMRA Midwest Region Annual ConventionMadison, WI Info at: www.nmra-scwd.org/Badgerland

April 30 \& May 1, 2011- Titletown Train Show- Shopko HallGreen Bay, WI Info at: www.ttsgbllc.com

May 14, 2011- NMRA Winnebagoland Division Annual Spring Meet Neenah, WI

## View from the Tower

by P.A. Wussow

Our meeting for February at Roger Blocks house to which we invited the Rhinelander club members to join us was a great success. Roger gave his clinic on wiring, which he will give to the WISE division at their postponed February meeting. There were tours of his layout, The Thomasville Division of the Chicago and north Western along with mini clinics on how his scenery was being done. Hands on Styrofoam scribing was demonstrated in his shop along with plaster on scrap cloth mountain making.

At the other end of the layout, in the area around the reverse loops we had a presentation of photos of the Rhinelander club president's the S scale layout on a photo frame. Jim Brown has a beautiful layout.

Back in the far back I had 12 feet of track running Roger's On30 DCC locomotive and 2 brass locomotives that Dave Krembs brought to show the members how PFM steam could be converted into reliable DCC operating locomotives. These two locomotives, Central Pacific No 60 (known as Jupiter) and the Union Pacific No 119 were models of the two locomotives that met at Promontory Utah for the ceremonial final spike, The Golden Spike, driven by Leland Stanford to join the east with the west via the transcontinental railroad. We ran the locos all on the same track bringing them together as they were in the great photo by A.J. Russell. As an added demo I had the JMRI system hooked up to the DCC control system to show use of computer connections to the DCC systems.

We were surprised by the fact that the photographer/reporter from the local news paper came by and took a number of photos that Dave and I were ask to be in. The photo story should be in the local papers sometime in the next few weeks.

This meeting is a good example of how as a $100 \%$ NMRA club we are able to provide local clubs and guests with the chance to meet other modelers in all scales (we had G, O, ON30, S, HO, HON3, and N scale molders) and share knowledge. We have been able to combine the social, Marge made cookies and coffee, with the educational and we hope that we are helping everyone who comes to the meetings.

Roger G. Blocks was awarded the Author AP Certificate by NMRA based on having given clinics for NMRA in past years, talks to various community and rail groups, and written numerous articles about our favorite topic.

Keith McMillan joined us again via Skype from Germany. The age group goes from 13 to $80+$ all having fun and learning so I feel we are a success.

Paul Wussow
Superintendent, Three Lakes Model railroad Club.

## Addendum from your editor

by R.G. Blocks
Keith McMillan, TLMRC member upon return to the USA found he had been awarded the Volunteer AP Certificate for his many years of service as a long time rail newsletter editor, clinician, and supporter of Midwest NMRA functions. Keith is working on a modular layout in Las Vegas and keenly interested in our potential as the new kids on the block. We trust Keith will bless us with his knowledge of controls, photography, model building and stories of his layout.

Paul A. Wussow has been awarded the Golden Spike, an NMRA achievement for his layout(s) and model building. His original Perch Lake and Superior (PL\&S) modeling was featured in a number of contests and his excellent photography found its way into NMRA publications. Paul's railroad interests, while quite wide seem to focus on Rhinelander, northern woods, the Soo, Wisconsin Central (WC) and our midwest railroads. His current Glen Ellyn layout, an amalgam of PL\&S / WC Rhinelander connection is operable sans scenery. We'll hope we'll be treated to many articles and clinics based on his completing various projects.


