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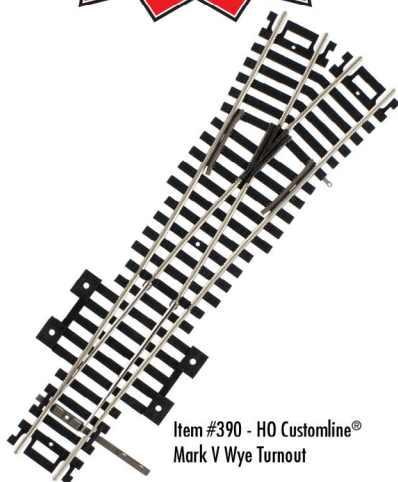
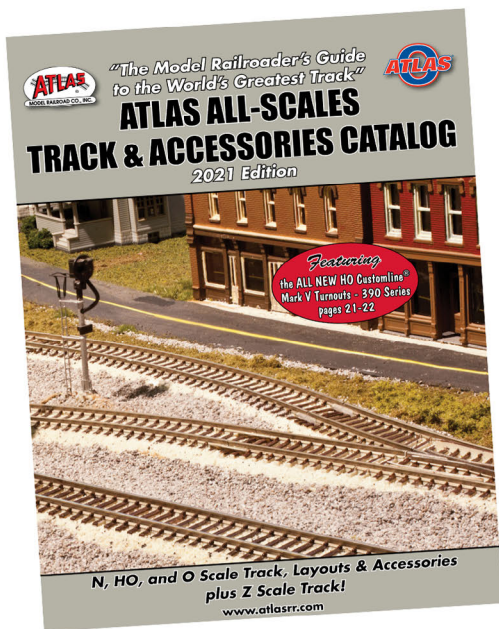
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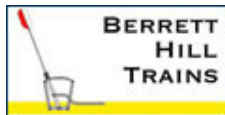
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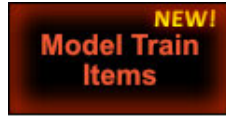
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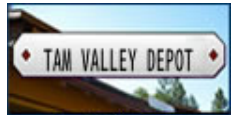
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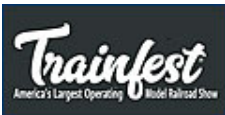
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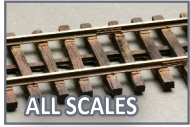
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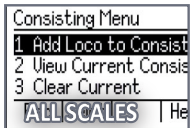
## Publisher's Musings: Update on the forum migration ...

*JOE FUGATE*



## MRH Website this month: make your own flex track, ...

*Compiled by JOE FUGATE*



## What's Neat: Complete scenery in under 30 minutes ...

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## The Tygart Valley Division of the Western Maryland

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**Publisher's Welcome: New high-performance thinner ...**

JOE FUGATE



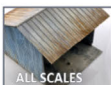
**Limited Modeler: The USRA Light Mikado**

JIM SIX



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# PUBLISHER'S MUSINGS



Model Railroad Hobbyist | April 2021

JOE FUGATE ON THE STATUS OF THE MRH FORUM UPDATES ...



**BACK IN SEPTEMBER 2020, I ANNOUNCED OUR PLAN TO MOVE OUR FORUM TO NEW SOFTWARE.** The developers have completed a test conversion and the new forum is now available for a test drive.

The screenshot shows a web browser window displaying the MRH Forum website. At the top, there's a navigation bar with the MRH logo and the text 'the MRH Forum'. Below this is a banner for 'BACK ISSUES!' featuring several magazine covers and the text '... over 100 pages of FREE model railroading how-to information every issue!' with a 'Get MRH Back Issues ...' button. Below the banner is a 'Reset Password' section with a login form. The form has fields for 'Username' (with the value 'joef'), 'Password', and 'Re-type Password'. There are 'Submit' and 'Cancel' buttons at the bottom of the form. At the bottom of the screenshot, there is a red play button icon followed by the text 'Play this' and 'Watch on YouTube'.

1. This video shows you how to get logged into the new beta test forum for the first time. Please note, this is old forum data from February and it's only for testing. Once we convert for real, we will delete this test data and reload it from the current forum.

Note this test version of the forum came from a copy we made back in February, so it's not current. Still, it has all but the last few weeks of posts.

The video [1] shows how to log into the test forum for the first time. Your user ID on the current forum got copied over, but you need to reset your password on the new forum since we can not see or copy your password from the old forum.

This change takes our aging forum software from 2008 and moves it into 2021 so it's easier to use.



2. Over half of you read MRH magazine on a mobile device, so this change will make the forum a lot more mobile-friendly.

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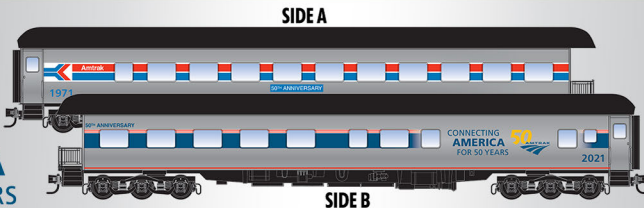
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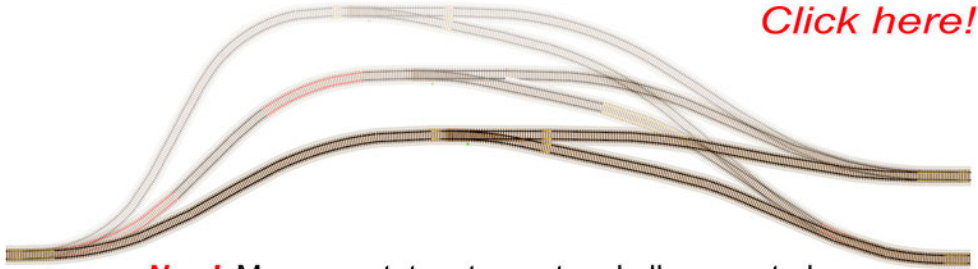
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## PUBLISHER'S MUSINGS | 3

### Finding popular old forum features on the new forum

Here's how to find familiar old favorite features on the new forum.

A common place to go on the old forum is *Recent Posts*. On the new forum, that's called *Latest posts*. It's the same thing and like the old forum, it's the default view. On the new forum, we also have:

- **New** - Topics sorted by the date on which they were created. In other words, most recently created.
- **Top** - Topics sorted according to the 'best' topics created within a selected time period (you can pick all time, year, quarter, month, week, or today.) Top topics use a formula considering number of posts, number of likes, number of likes for the opening post, number of views, and post to likes ratio.

On the old forum, threads with new posts had a red 'new' that you can click to jump straight to the latest new post. On the



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# Coming attractions!

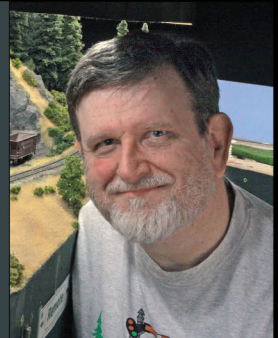
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new forum, threads with new posts have a red bar along the left. If you click it on a thread with a red bar on the left, it goes into the thread, then after a moment jumps down to the first unread post, more or less what new does on the old forum.

However, the red-bar-marked thread feature (posts I've not seen) has some interesting smarts that go far beyond the old forum. Once you clicked new on the old forum, it assumed you read everything new and that was it.

If I jump into a red-marked thread that has several pages but I don't read all the pages, the the red bar remains on the thread. And when I jump into the red bar-marked thread again, it brings up the first unread post page, effectively starting me at the next page where I left off. Nice!

I can also see under the Users column who started the thread, and sometimes two more user avatar icons. What are those?

I used TOP to get a list of threads and scrolled down until I found a red-left-bar thread with three user icons under the user column.

The middle user icon was Jeff Shultz and it represented who posted *the first unread post*. There was another icon after Jeff meaning someone else had posted after Jeff and they were the last to post, so the thread had *multiple* unread posts for me.

I clicked the red-left-bar-marked thread title and it jumped down to Jeff's post, with another post after his made by someone else. I get more thread summary information on the new forum that I don't get on the old one.

## **What about 'My recent posts' ... ?**

The old forum has a rather handy feature called 'My recent posts.' This allows you to see all the threads you've started or posted in, and makes tracking activity of interest fairly easy. Can you do that on the new forum? You bet, and more.



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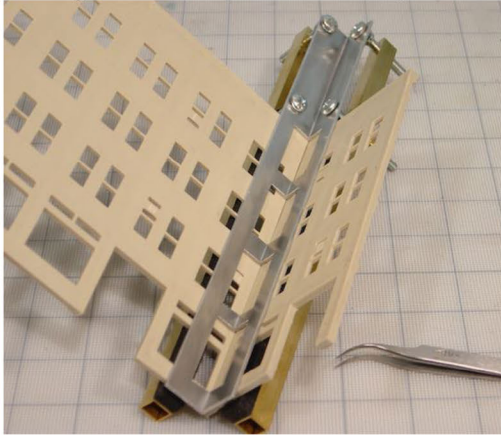
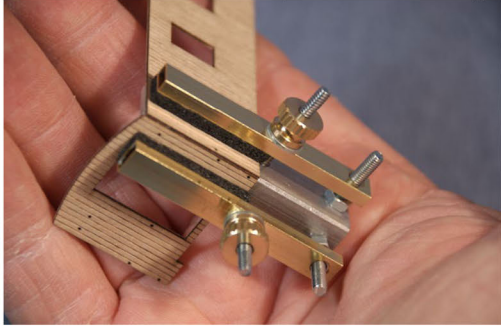
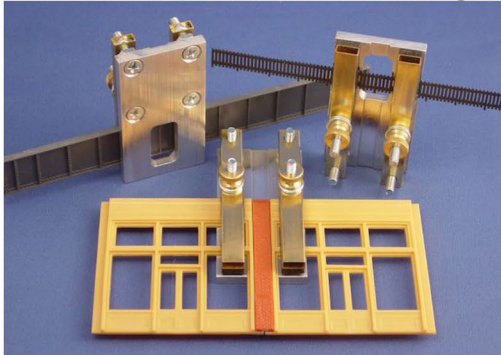
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On the new forum, your user avatar displays on the upper right. If you right click or tap your avatar, you get the option to select your user profile.

You will notice your user profile lists so many posts, so many topics started, so many likes, and so many conversations started.

If you click on the posts entry, you get a listing of every post you've made.

If you click on the topics started entry, you get a list of each topic you've started.

And you guess it, if you click on the likes entry, you get a list of each post you've liked.

And finally, the conversations entry lists each of the private conversations you're engaged in. Most handy!

**Following threads**

With the new forum, following a thread of interest has become super easy.

While reading a thread, if you find it interesting and would like to follow it, all you need to do is go to the top of the



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page next to the Reply button and click the bell [3].

Notice it says “Follow this topic to get notified about new replies.” If you want, you can even set up your profile to get an email when someone replies to a topic thread you are following!

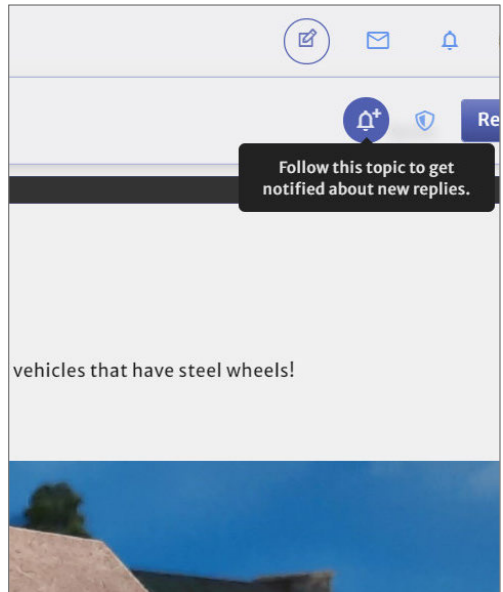
And if that’s not enough, you can also reply to the notification email via email and your email reply will become a new post in the topic thread. Nice.

You can also visit your avatar on the upper right and select *+ Followed Content* [4] to get a complete listing of everything you’re following and edit the list to remove anything you’re no longer interested in.

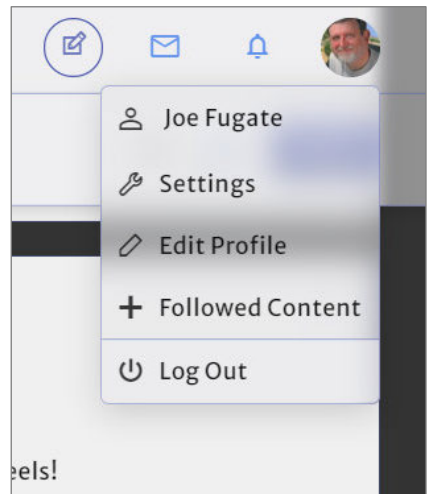
## Likes

The new forum allows you to easily like a thread or a specific post just by pressing the like button (thumbs up icon).

We have only enabled likes, not dislikes. We feel too often folks use dislikes to be vindictive and essentially “dump on” the one



3. The new forum makes it super easy to follow a topic thread, when reading the thread, just click the bell up at the top.



4. Selecting your avatar on the upper right brings up many options.



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doing the posting. This behavior seems to fuel thinly veiled flame wars and undermines the goals of camaraderie and community on a forum.

Along with likes, you will notice your profile now has something called "reputation."

Reputation is simply how many likes you have across all your posts. Because we didn't have likes on the old forum, everyone starts out on the new forum with a reputation of zero.

To prevent abuse, the new forum limits the number of posts that can be liked per day based on a user's reputation score. A user with a reputation of 100 or higher can like an unlimited number of posts per day.

One example of abuse this helps prevent is user A creating a new account called user B and liking hundreds of posts by user A to increase user A's reputation.

When will we be moving to the new forum? We need to ferret out all the bugs first, and we've already found a good number.

Most likely we will correct all these bugs and then test again to make sure we're bug free. That's likely to be many weeks yet, pushing us into early summer for the final move. ☑



A handwritten signature in black ink, appearing to be "John".

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## LAST ISSUE RATINGS

Top rated articles in the [Mar 2020 issue](#) of *MRH* are:

**4.8** Great running DCC loco on a budget

**4.8** March 2021 news

**4.7** What's Neat: Wrecking cars with aluminum foil ...

Issue overall: **4.3**

---

Top rated articles in the [Mar 2020 issue](#) of *Running Extra* are:

**4.7** Modeling boxcars with open doors

**4.4** Using AK pencils to weather layout details

**4.3** Limited Modeler:The ubiquitous USRA Mikado

Issue overall: **4.5**

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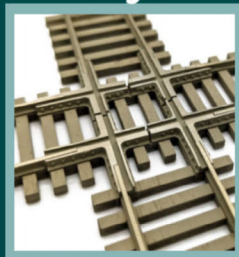
Building an accurate crossing has long been a challenge in our hobby.

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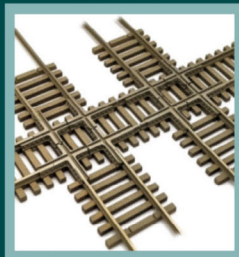
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HO scale 90 degree versions are the first in what will be a large library of popular sizes

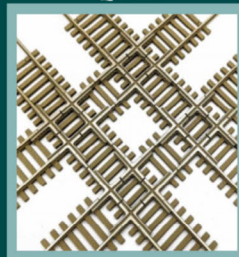
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*Best of the*

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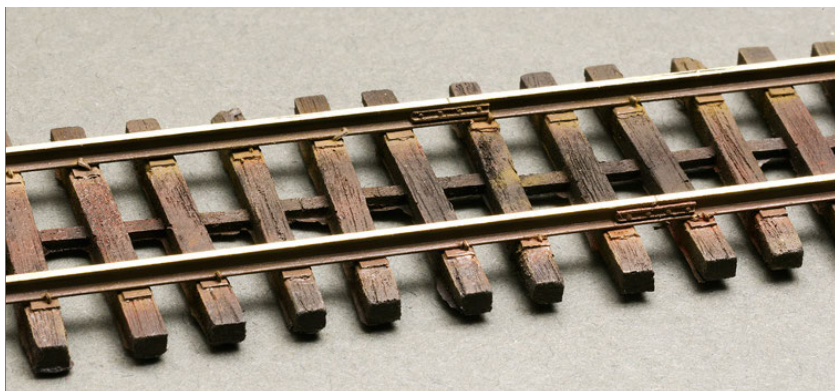
Website

**MRH**  
mrhmag.com

**THIS  
MONTH**

Model Railroad Hobbyist | April 2021

Compiled by **JOE FUGATE**



## Make your own flex track

MRH forum member **CO** (Ole in Colorado) demonstrated how he's making his own "flex track" of sorts to speed up his handlaying:

"Here is how I'm making my own HO flex track. I do the tedious detail work on a short section of hand laid track, and then make a rubber mold and reproduce the track as tie strips in two-part resin."

Read about the full step-by-step process!



[View the full thread on the MRH website](#)

▶ **MRH'S MONTHLY GREAT MODELER POSTS**



1. Tom Conboy has chosen to model a real life tiny shortline as a micro layout, making for a fascinating read on the MRH forum.

## The Herrin micro layout

MRH forum member **Tom Conboy** shares the details of his small micro layout in this fascinating thread.

If you don't know what a micro layout is, they're a very small layout of just a few square feet, but deliberately made to have some intense operational and detailing possibilities. Tom's micro layout makes for a superb example of the genre!

*"The Herrin branch line was constructed in 1895 by the Chicago & Texas connecting Carbondale, Illinois with Herrin. A connection with the Burlington Northern was built to the east of town ..."*

Tom took a real-life mini-shortline and has modeled it on a micro-layout. Tom gives Google maps of the line and step-by-step details of the modeling process. Check out this great thread!

[View the full thread on the MRH website](#)



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# WEATHER

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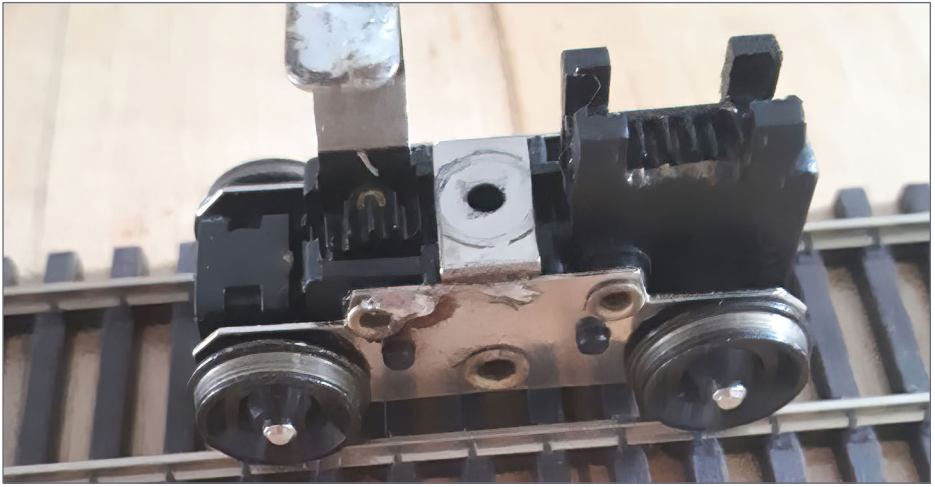
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2. David Kempton found this truck would seize up and the wheels would refuse to turn, so he asked the forum members for help.

## Power truck locks up

Forum member **DavidColin** (David Kempton) found one of the truck towers in his loco would just lock up and the wheels would refuse to turn.

*“By working gears by hand, the I found that the gears are jamming at one particular spot, but I can’t see why. I’ve looked at them with good light, even gently filed a bit at the tooth where it seems to be jamming, but nada. I can force it past the jammed spot.”*

It didn’t take long for the forum members to determine the problem. Rob Spangler posted ...

*“Classic split gear problem. When they split, it often isn’t even noticeable except under magnification. Any split component must be replaced.”*

Read all about the troubleshooting process!

[View the full thread on the MRH website](#)



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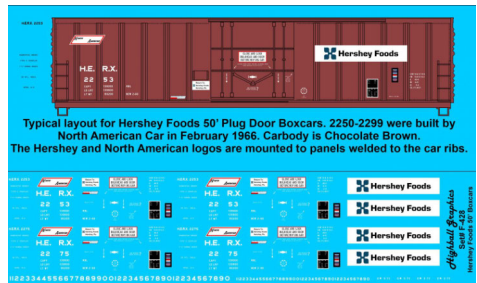


3. Jason Miller found this prototype boxcar photo and wanted to model some of these boxcars for his Hershey, PA plant on his layout.

## Tale of modeling a prototype boxcar

MRH forum member **JLandT Railroad** (Jason Miller) posted this prototype boxcar photo on the MRH forum and then relayed the story of how he was finally able to model it [3].

*"I've found that the Athearn 50' NAC Plug Door series was the perfect match... So I asked Jim of HighBall Graphics if he could help out with the Hershey decals. Well Jim has decided to run the series on his website as a permanent run."*



Read the full thread on the MRH website!

[View the full blog on the MRH website](#)

## Latest *MRH* Weekly photo fun thread

Every week, a new Weekly Photo Fun thread appears. It's frequently loaded with inspiring photos of great modeling ...

View the full thread on the *MRH* website



4. The top photo from MRH forum member Piedmont (Dale Latham) depicts his Pope's Creek Coal Company Anita May mine. Nice modeling!

To the right is a photo posted by Mountaingoatgreg (Greg Baker) of his new summit station. Believe it or not, the name *False Summit* is an actual prototype name on Marias Pass, Greg did not make it up.



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- Coming attractions update
- Rick Sutton "clinic preview"
- Joe talks about grades
- Attendee Q/A

QAT  
#3



Joe Fugate



Rick Sutton

QAT: Grades and vertical curves



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# WHAT'S NEAT

column



Model Railroad Hobbyist | April 2021

KEN PATTERSON'S COLUMN THIS MONTH ...

- Building in-throttle consists on the TCS UWT-100 and UWT-50
- Scenery from beginning to end



**ON THIS MONTH'S "WHAT'S NEAT" VIDEO,** Dan Mycio demonstrates building a multi-unit consist with the TCS UWT-100 WIFI throttle. Then Campbell Rice builds a module from bare foam to completed scenery.

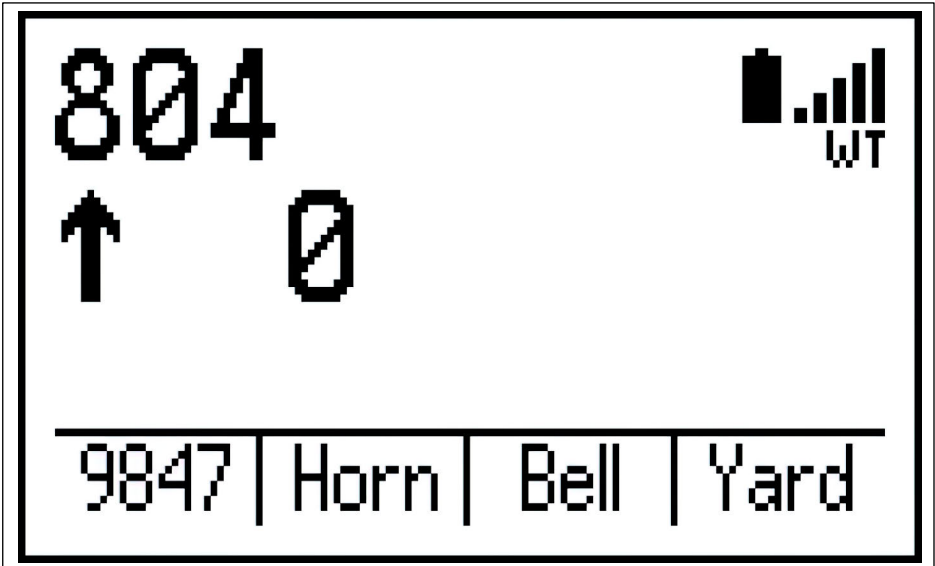
## WHAT'S NEAT with Ken Patterson Scenery in under 30 mins



*click to play video*

**PHOTOS AND VIDEO OF SUPERB MODELS**

## Building a consist on a TCS UWT-100



1. Dan starts with one locomotive, 804, dialed-up on the throttle. From this screen it's a simple push of a soft key to switch to controlling locomotive 9847.

**Please include a phone  
number when emailing us if  
you *need* a reply!**

**( Just in case your spam filters eat  
our email response ... )**



## Main Menu

- 1 Recall
- 2 Operations
- 3 Consisting

Esc | Selct | | Help

2. Using the menu on the throttle, select the third item on the throttle, Consisting.

## Consisting Menu

- 1 Add Loco to Consist
- 2 View Current Consist
- 3 Clear Current

Esc | Selct | | Help

3. Add a locomotive to the consist by selecting line 1.

Cnst Add t: 9847\_

Esc

Addr

Bksp

4. Type in the number of the locomotive you want to add to the consist with 804.

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## Consist Members

1\*↑ 804

2 ↑ 9847

Esc | Selct | Add |

5. At this point, the screen shows the two current members of the consist, which locomotive (\*) is the lead, and which direction the locomotive will go in the consist. The up-arrow is for forward, the down-arrow is for reverse.

### Did you see this article?



The light USRA  
Mikado

In

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Cnst Add ↓: 9810\_

Esc

Addr

Bksp

6. Use the Add soft button on the previous screen to add another locomotive, in this case 9810. Note that the direction button has been used to set that this locomotive will be running in reverse as part of the consist.

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# Consist Members

1\*↑ 804

2 ↑ 9847

3 ↓ 9810

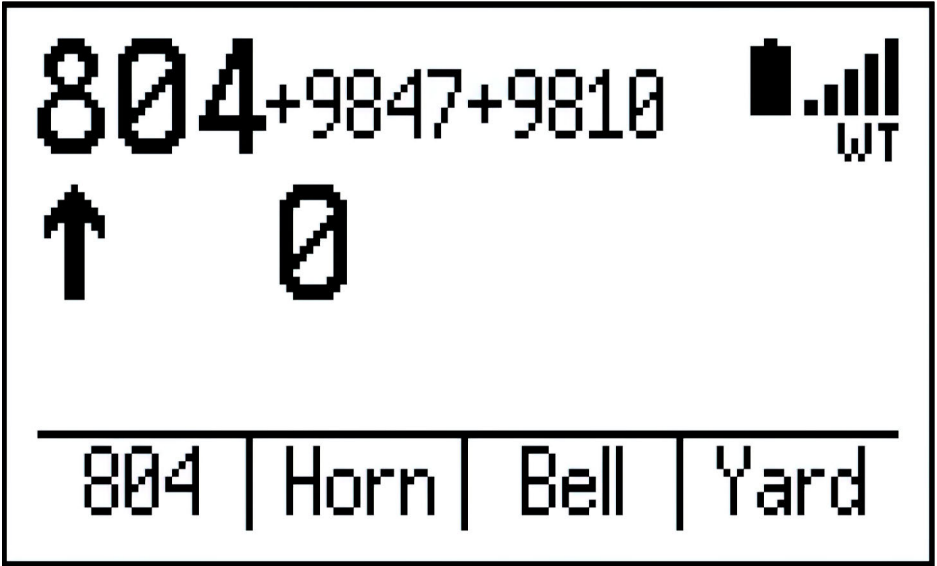
Esc | Selct | Add |

7. This shows all three members of the consist, which unit is the lead or cab, and which direction the locomotives will travel in relation to the cab unit. Since this consist is now built, use the Esc soft key to exit the consisting menu.



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8. In normal travel mode, the throttle's display shows the lead locomotive number in larger bold print, and the other units in the consist in smaller print.

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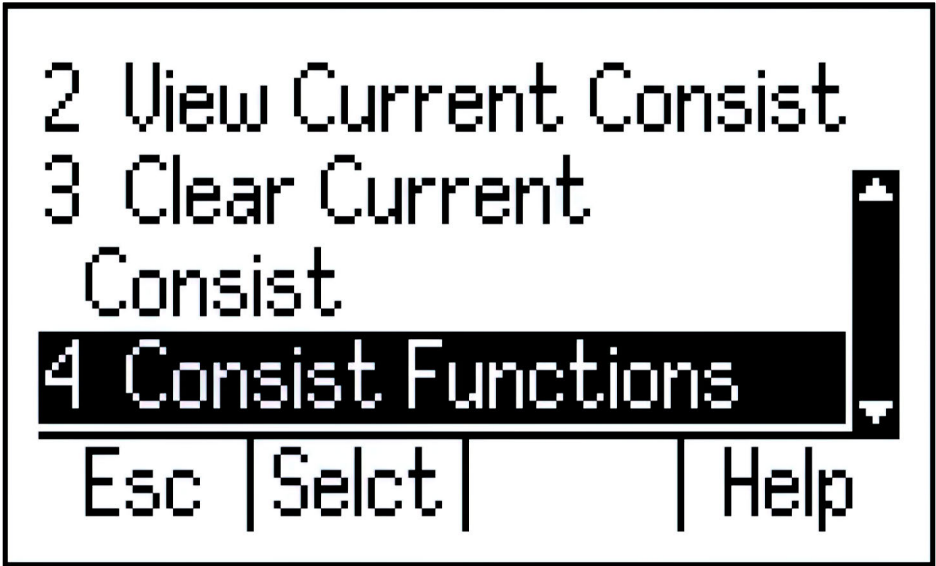
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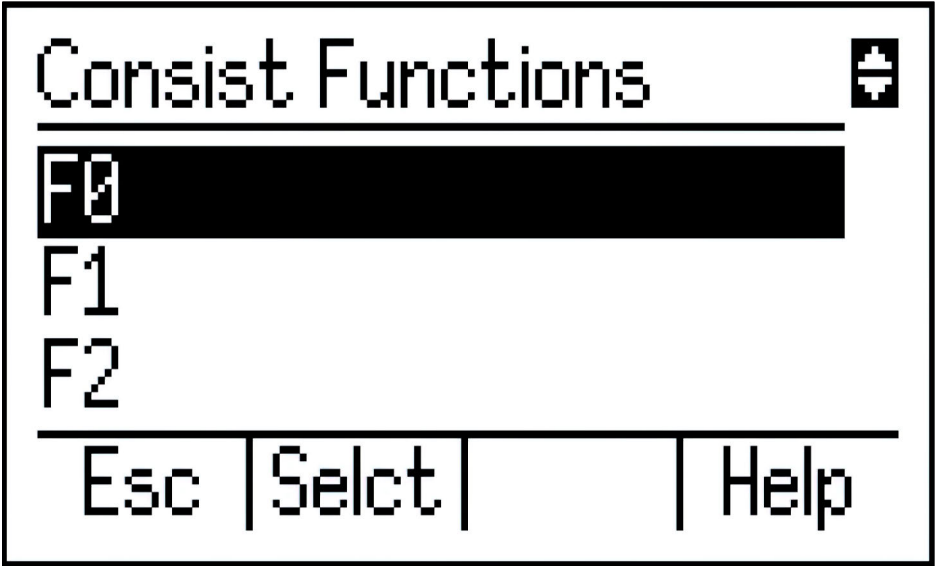
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9. While Dan showed how the throttle would send some functions only to the lead locomotive, and others to the entire consist, he didn't show how to set that up. To start, go to #4 on the Consist Menu, Consist Functions.

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10. Each function on the throttle can be selected.

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## Function Routing

---

1 Send to All Locos

2\*Send to Current Cab

---

Esc

| Selct

| Help

11. Once selected, the user can choose if that function will go to all of the locomotives in the consist, such as F8 – Mute, or just to the current cab, or lead, unit, such as F0 for the headlights.

**When talking to hobby vendors, please remember to mention MRH.**

## Building a layout from the base to the finished product



12. In the second segment, Campbell Rice builds a module to demonstrate his method of layout construction from the base to the finished product.

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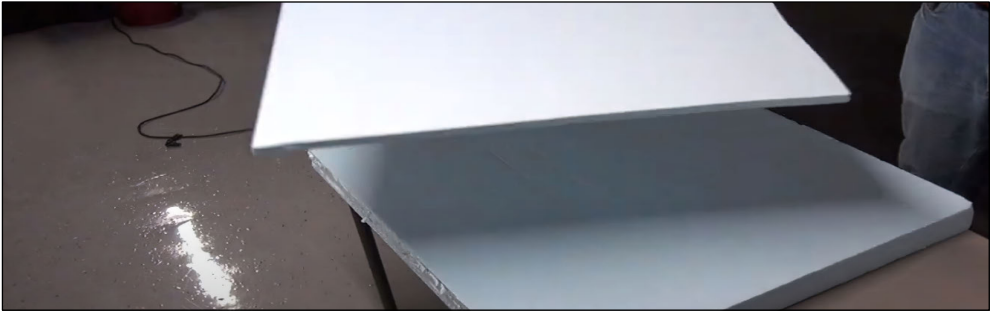
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13. Campbell starts with one or two 2"-thick pieces of Styrofoam on a plywood frame for a sturdy base. He then places a ½" layer of Styrofoam on top of that.



14. He marks the path his track will take on the top ½" Styrofoam layer, and then cuts the foam about an inch outside the track lines.



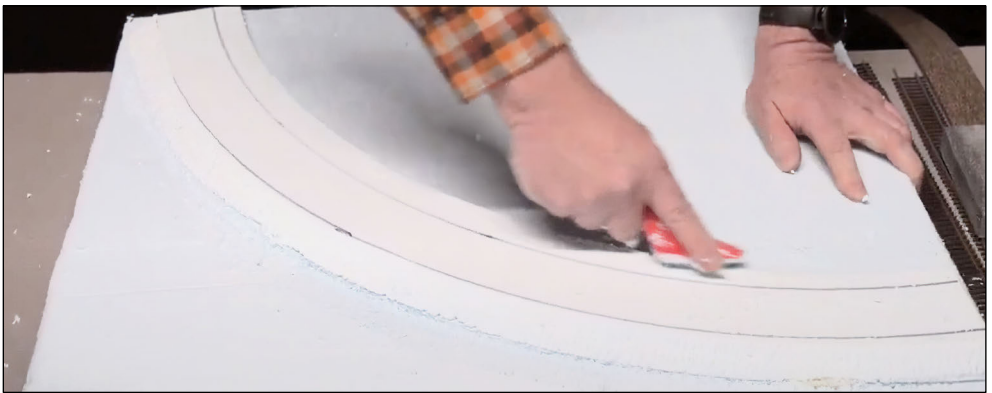
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15. After scoring and snapping the excess Styrofoam off, Campbell glues the section, which is now his sub-roadbed, to the base Styrofoam with Gorilla Glue. Gorilla Glue expands as it cures, so he uses weights on top to ensure the roadbed sits flat.



16. After the glue has dried, Campbell uses a planer, such as a Stanley Surfoam Shaver, to carve the sides of the sub-roadbed and give them a slope. Carving Styrofoam makes a mess, so he keeps a shop vac handy.



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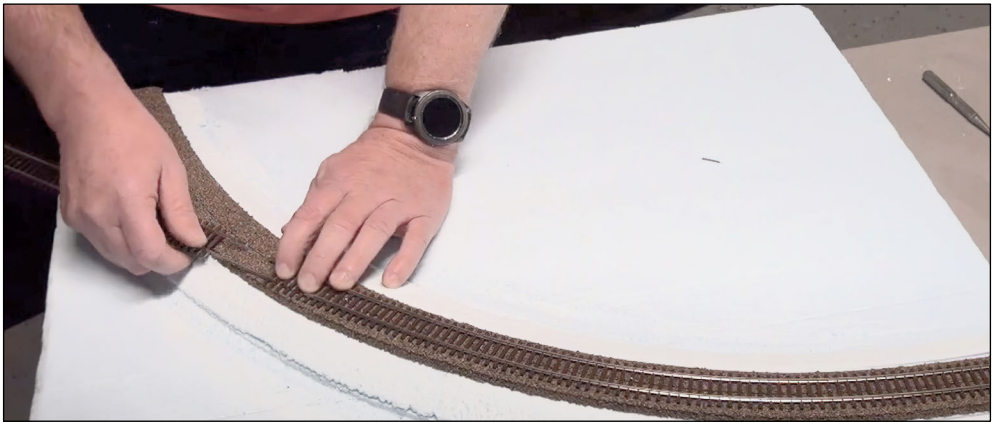
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17. After forming the sub-roadbed, Campbell glues down his cork roadbed with wood glue. Campbell uses cork for his mainlines, with branches and sidings sitting directly on the foam.



18. When the cork is dry, Campbell lays the track on it. In this demonstration he is using Atlas code 83 flex track, securing it temporarily with small brads. Gluing down the ballast will permanently secure the track later.



Also see the “What’s neat this week” weekly video podcast!

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19. At this point, he paints his track, applying a matte coffee bean color on the ties and rails.



20. Campbell then paints the Styrofoam base an earth tone, in this case a color called "Sahara Desert Sand" that he bought at a big-box hardware store. Many people buy an appropriate color off the discount reject paint cart that can often be found at the back of the paint department.



Also see the "What's neat this week"  
weekly video podcast!

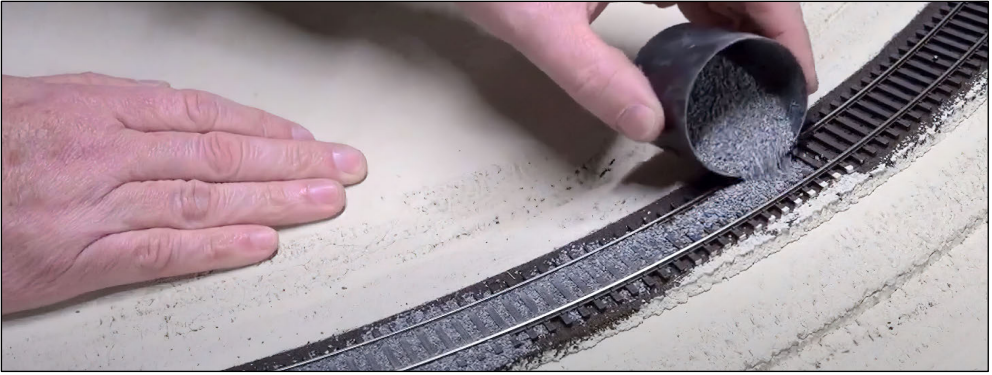
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21. Campbell does not use any fancy ballast spreaders, preferring a small cup to pour it on, and spreading it with a finger. Using real rock Arizona Rock and Mineral ballast, he taps the rails with a paint brush handle to knock the rock granules off the ties.



22. Campbell glues the ballast down with a 3-to-1 ratio of Modge Podge and water containing a couple of drops of alcohol and dishwashing soap.

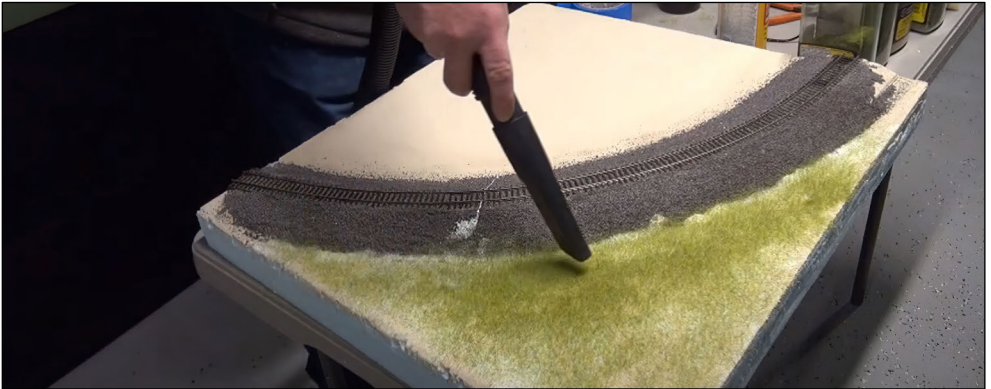


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23. For ground cover, Campbell prefers static grass. Here he uses a 6mm summer blend purchased in bulk from Scenic Express. It is blended with some 6mm dead-grass color static grass as well.



24. Campbell demonstrates his technique of passing a shop vac over the tops of the static grass to help the fibers stand up straight.



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25. After the static grass is down, Campbell goes over it with an assortment of Woodland Scenics ground foam products, securing them with a spray glue mix.

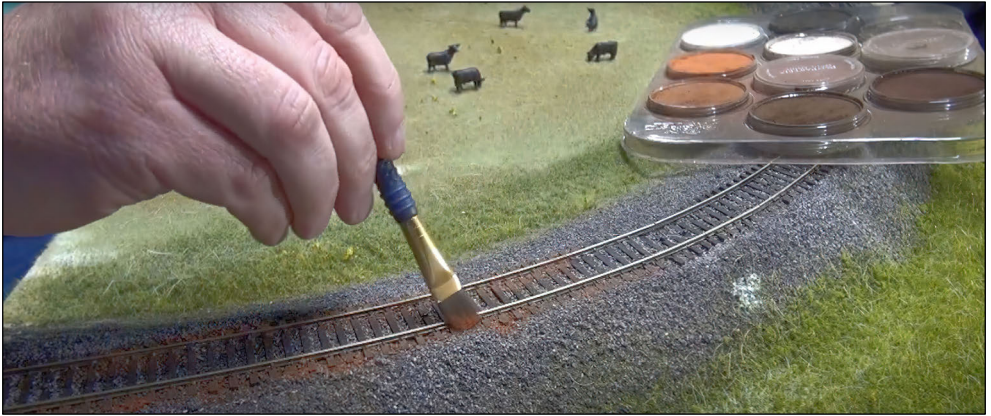


26. Campbell uses Pan Pastels to weather his track.

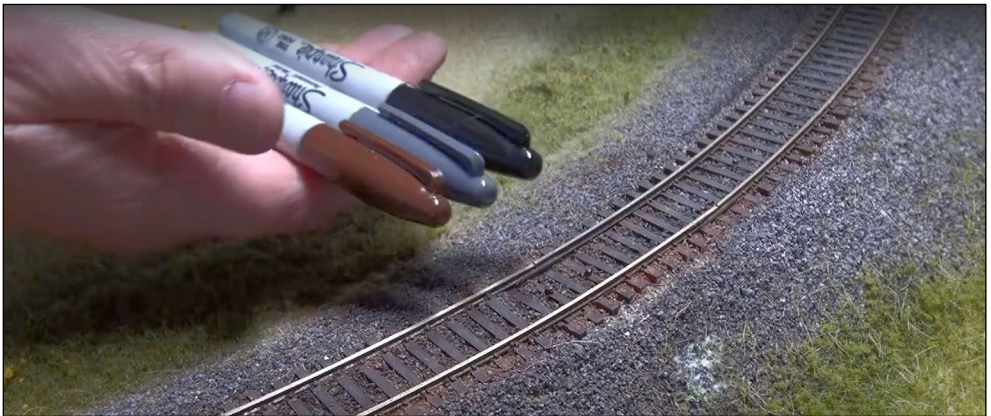


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27. Campbell spreads a light rust color down the rails. He prefers black on a mainline track, and brown on branch lines.



28. For his ties, Campbell uses paint or Sharpie pens in three primary colors: Black for new ties, brown and gray for older ones.



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29. Campbell finishes the display by adding cattle and hay bales, as well as a background photo he printed from his computer. See the video for the entire demonstration of how building a 2' x 2' display module can hone your modeling skills.

★★★★★  
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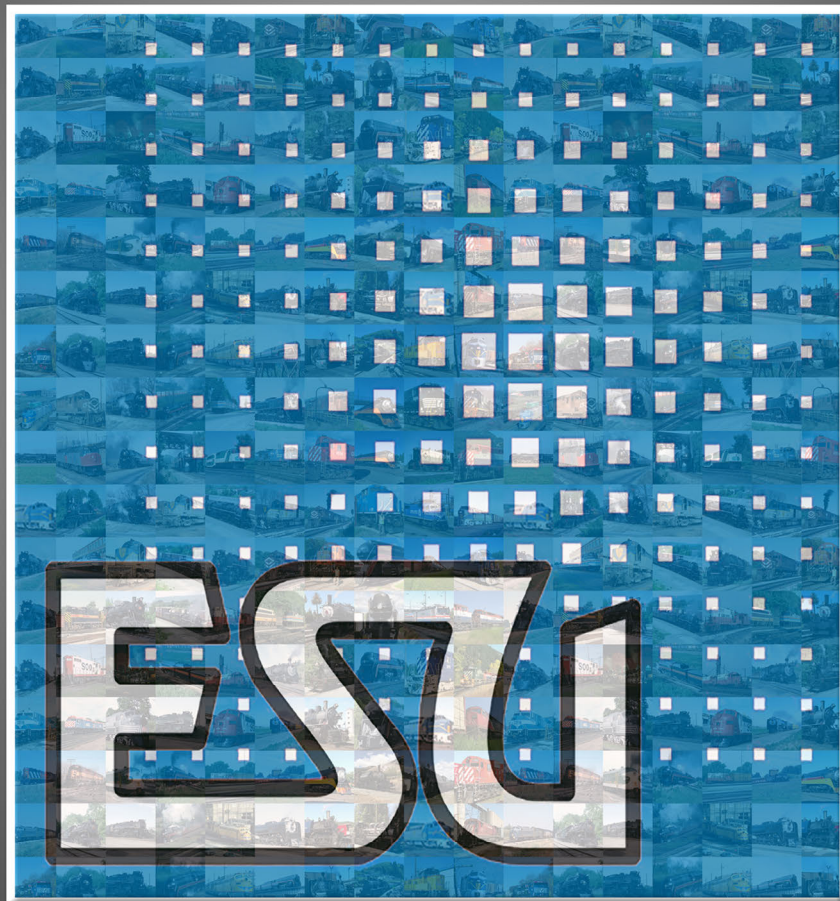
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# DIY displacement screw terminal strips



Electrical  
Impulses

Model Railroad Hobbyist | April 2021

**CARL BLUM MAKES TERMINAL STRIPS FROM PVC MOLDING ...**

**1. A happy Les with his wiring panel and Yard control board.**

**MY FRIEND LES ASKED ME TO HELP HIM WIRE**

**HIS** Lionel Layout in a dependable way that would be easy to troubleshoot. Les has five loops, a seven-track yard, and a few sidings.

Les wanted two control panels, a fixed panel for the yard, and a panel on a mobile cart for the main track loops. With remote control turnouts and accessories, the wiring was going



to get complex, and it would be important to be able to trace all the circuits.

I said I would be happy to help, so we met one day every week to work on layout wiring.

First, I encouraged Les to do multiple wire drops from the track so he wouldn't have dead spots or voltage drops. Each transformer output would need a wire to all those drops from the track.

Adding two wires for each remote-control turnout pushed the number of control wires to 30 or more. I wanted a system that would be not only easy for Les to work with now, but also easy to maintain and troubleshoot in the future.

The next big question: what type of wire to use? I prefer stranded wire because it doesn't break as easily, and I had *a lot* of 18AWG stranded wire on hand. I had both single conductor wires and multiple conductor cables, some with up to 40 conductors! I prefer a cable with multiple conductors to running many single wires. A multiple-conductor cable can use a mating plug set, so we could build a mobile control panel that unplugs from the main layout. Nice!

All the connections under the table can get quite messy, and I wanted something easy to maintain and troubleshoot. Low-cost terminal strips would be good. I have used various commercial wiring terminals, but the cost can get quite high for so many.

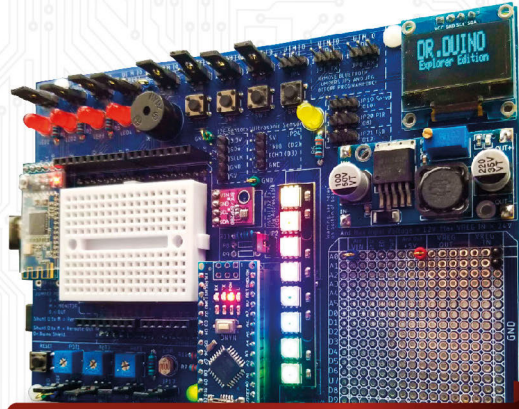
While I was pondering the problem, I thought of how much I liked the Insulation Displacement Connectors or "suitcase connectors." With no wires to strip, they're quite handy to wire, and they're also dependable when used properly.

However such terminal strips don't come cheap, and they can be hard to label and organize.



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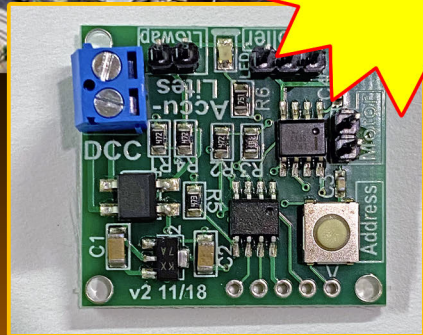
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2. Two brands of PVC trim. 1x2 on left (3/4" x 1.5") and 1x4 on right (3/4" x 3.5").

## PVC TRIM TERMINAL STRIPS

I got an idea for a new type of terminal strip. I had just made a protection fence for my hot tub heater with PVC plastic trim. The boards come in various sizes like 1x wood trim, and have a smooth white surface that's great for marking with a Sharpie pen.

I thought if I put a groove in the surface, we could push two wires in the groove and follow them with a sheet metal screw. The metal screw thread would cut through the insulation and then would conduct the electrical current from one wire to its neighbor.

I made some samples and they worked! The PVC plastic does not absorb water, so it would remain a good insulator. I call them Terminal Strips for Insulation Displacement Screws or TSIDS.



I took one sample and made a cross section [3] so I could see how the screw cut through the insulation and connected the wires. I found it to be quite effective!

Then I did an amperage test. I do not suggest using these terminal strips for voltages higher than 20 volts, but I did want to test the limits of amp load for the TSIDS.

For this lab test, I used an electric space heater for a load. The heater drew 11.5 amps for 15 minutes. The meter shows 23A since the wire passes through the meter clamp twice. The wires and the screw did not get warm, so TSIDS should be safe for model railroad use.

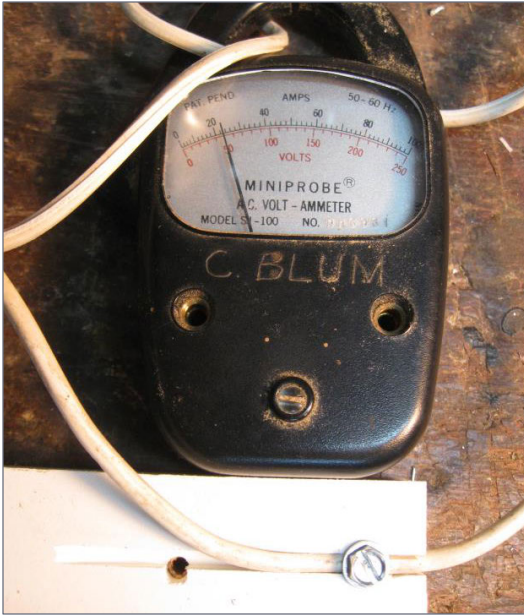
## EXPLORING DIFFERENT WAYS TO MAKE TSIDS

After wiring Les' layout, here's what worked and what didn't with TSIDS.



3. Cross-section through wires and the screw.





4. Terminal screw conducting 11.5 amperes between two wires. (23A/2)

We found the easiest screws to be hex-head screws like those on heating and air conditioning ducts. The hex head makes them easy to drive with a nut driver, even upside-down under a table. Also, the screws can be bought in bulk, something like \$21 a thousand. We used #8 x 1/2" screws.

One good supplier we found is Bolt Depot:

[www.boltdepot.com/Product-Details.aspx?product=2352](http://www.boltdepot.com/Product-Details.aspx?product=2352).

Our first set of TSIDS did not make reliable connections. With 1/2"-long screws, we cut the grooves 1/2" deep. Wrong [5]!

The wires could wiggle away and not get cut through. We reduced the groove depth to 1/4" and then the connections were dependable.

We tried two types of strips:

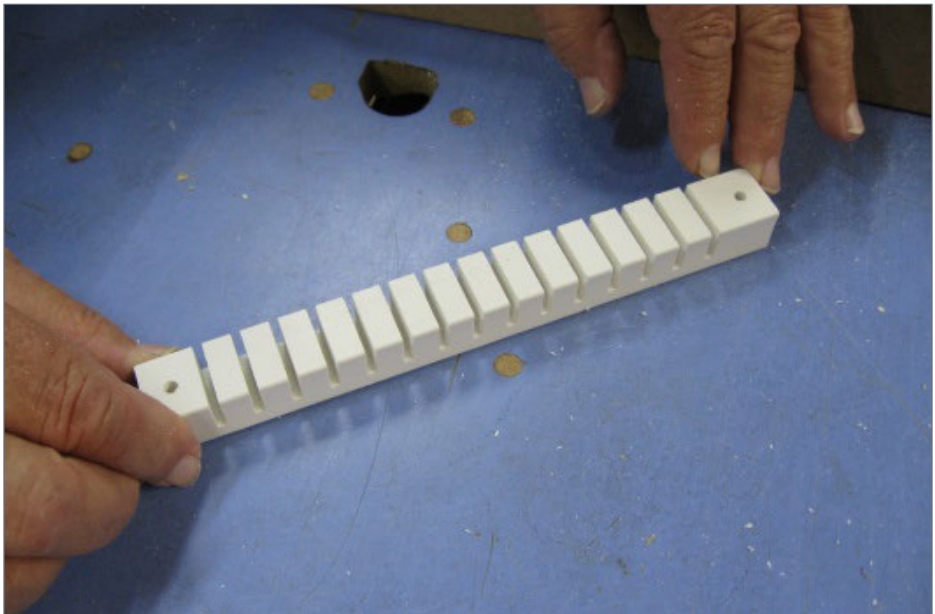
- Lots of cross cuts for individual circuits [6, left]
- Strips with one long slot for common wires [6, right]

We made the first crosscut strips  $\frac{3}{4}$ " wide, but we found each groove to be only wide enough for one screw. If we left the strips 1.5" wide, we could tap in three wires with three screws [8].

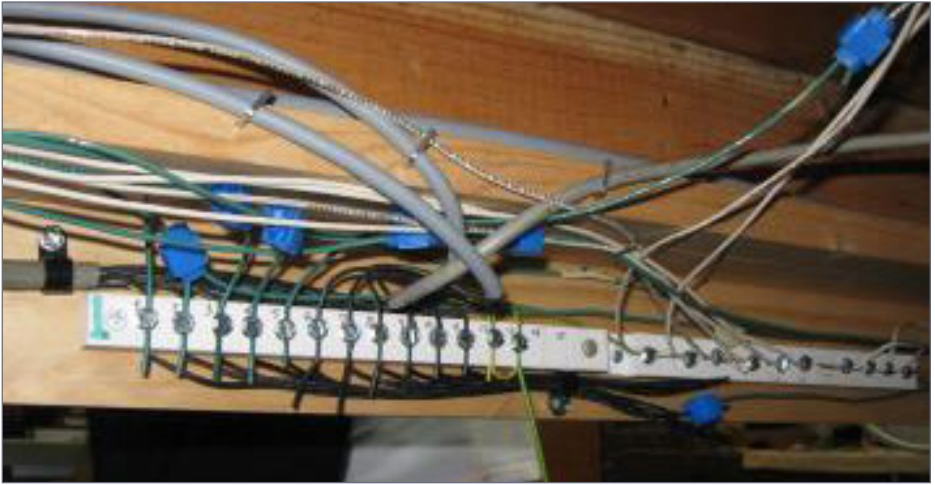
Then we found the long grooves in the common strips just looked messy with the wires and screws overlapping. So we tried running the common wire in a serpentine pattern back-and-forth across the strip. This looked much nicer [7].

## SETTLING ON THE RIGHT TSIDS FORMAT FOR THE JOB

We finally decided the one-groove common terminal strip [7] was working when we needed to connect a lot of things to one single source, so why change it? And the multi-slot TSIDS work when we need to make a lot of different connections, so we can use the right format for the job.



5. Failed terminal strip with  $\frac{1}{2}$ "-deep grooves.



6. Narrow terminals with room for only one screw. We used suitcase connectors to add a second wire. Also on the right, notice the one long-slot common terminal strip with the white wires overlapping.



7. Serpentine common wire at right end of terminal strip.



8. Here is the 1.5" terminal strip showing up to three wires screwed down.



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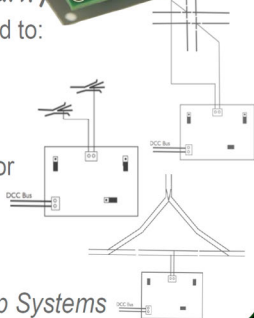
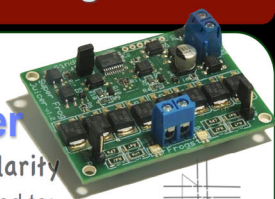
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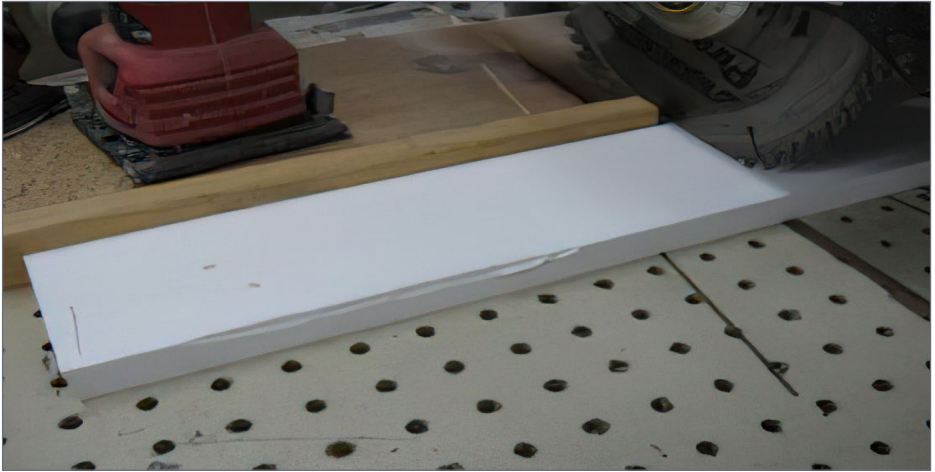
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Here is the process we use to make some TSIDS for our layout. Smooth cuts look nice, but accuracy isn't required.

Cut the 1x2 PVC trim boards into 12" pieces, to get 8 blocks from an 8' board. We used a table saw and a radial arm saw, but a chop saw could work too.



9. Cutting 12" strips from stock PVC board.

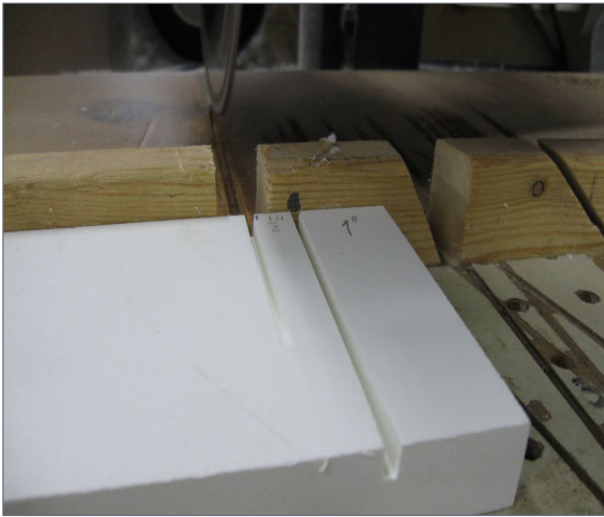


10. Setting depth of grooves.



Then we set the saw blade to cut just  $\frac{1}{4}$ " deep.

Cut the first slot an inch from the end to leave room for a mounting screw. I put a black mark on the back stop. Then I cut the slots  $\frac{1}{2}$ " apart to make sure the screw heads won't touch each other. This also leaves writing space for marking the connections.



**11. First cut an inch from the end. Black mark is  $\frac{1}{2}$ " from next saw cut.**



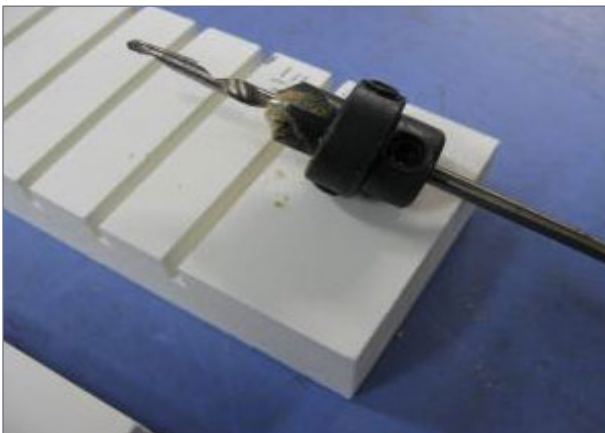
**12. Screw is  $\frac{1}{2}$ " from blade for spacing grooves.**

You can also make a fixture for your table saw for even more foolproof slot spacing. Cut two slots through a board a half inch apart. Now drive a short screw so it just barely protrudes from one of the slots [12]. Clamp this board to the miter gauge with the small screw sticking out so it is half an inch from the saw blade.

Then you can quickly cut the rest of the grooves without measuring each cut. Just slide the PVC trim over so the last cut slot fits over the screw that's protruding, and cut the next slot. Repeat until you get to an inch short of the other end to leave room for the second mounting screw.



**13. Mark location for mounting screw.**



**14. Combination drill and countersink.**



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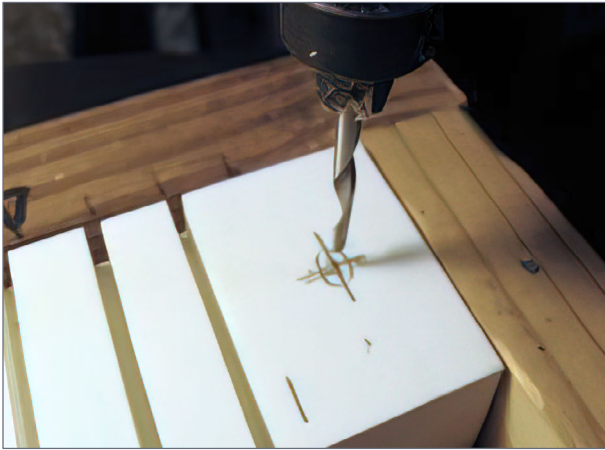
For more information visit our Internet site: [www.RingEngineering.com](http://www.RingEngineering.com)



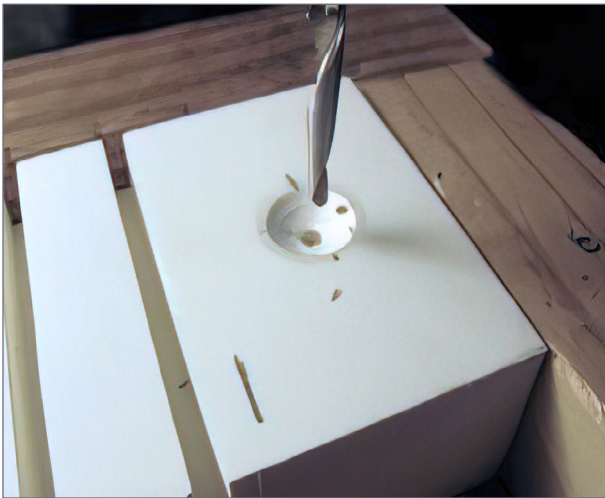
Using a drill press makes it easy to drill the mounting holes. A hand drill works OK too.

In the pictures, you see a corner fixture makes quick work of locating the mounting screw holes. Drill a clearance hole for sheet rock screws, and then countersink them so the heads will be flush [16].

You can also use a combination drill with an included countersink in one drill bit.



15. Lining up the drill in corner fixture.



16. Finished countersunk hole.



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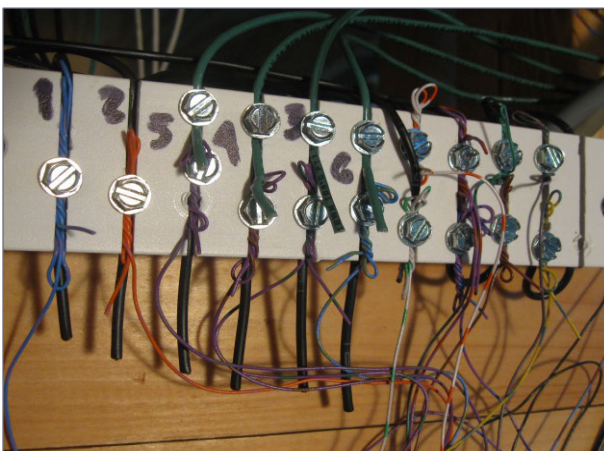
Screw the terminal boards wherever you need them under the layout or inside a control panel.

## VARIATIONS ON A THEME

Two 18AWG wires work fine together, but we also had some smaller wire from control switches to connect. We found that if we doubled the smaller wire until it filled the groove, the screw would cut in fine [18]. Make sure you mark everything as you go – the marks show up great on the white PVC surface [19].



17. Main wiring board with three bus cables.



18. Top: Two 18AWG wires exit. Bottom: 26AWG wire doubled-up.





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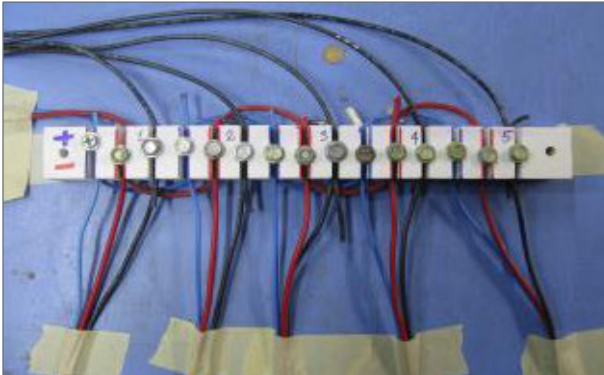
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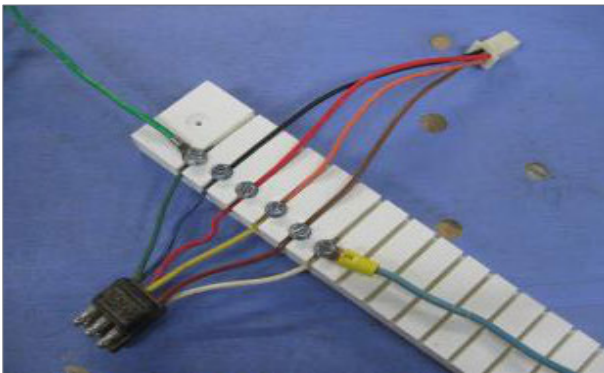




19. A five-slot block for five-conductor cable, clearly marked with a Sharpie.



20. Red and blue common-wire serpentine with numbered black wires in-between. Good for signals, for instance.



21. Here is a connection between two pigtail plugs with two taps to wires with ring or spade crimp-on terminals.



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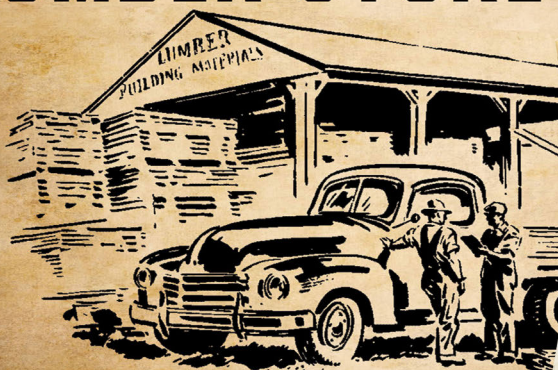
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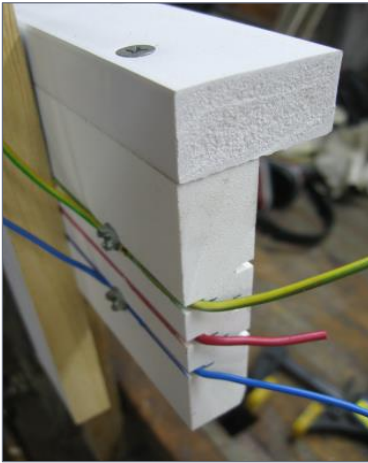
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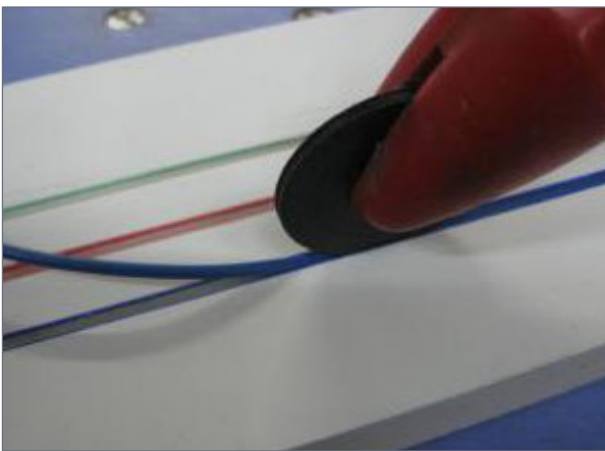
These photos [19, 20, 21] shows the versatility of these terminal strips. Connections between two pigtail plugs can be changed with just a nut driver [21]. The screws also can hold crimp-on terminals of either ring or spade type [21].

You may even think of more versatile ways to make connections with TSIDS.

Taking this idea to the next level, you can combine terminal blocks with your layout frame! You can use PVC trim for your benchwork, even making L-girders [22].



22. “L-Girder” with slots for six conductors.

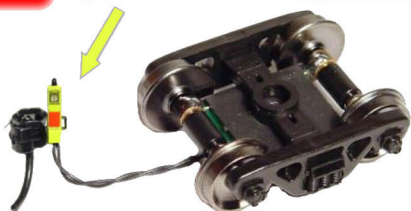


23. Using a window spline tool to press the wires in.



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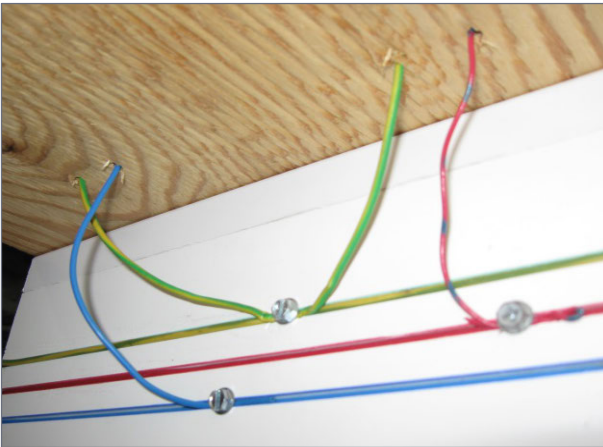


Rip cut as many grooves as you need for conductors the length of the 1x4 frame members, and stuff the wires in the whole length. You can even color the grooves with a marker to indicate which groove is for what.

For short stretches I found a screwdriver worked OK, but for putting wires in long boards, I used a window screen spline tool to press them in [23].

Then you can tap wherever you wish with the Insulation Displacement Screws technique.

I hope you find these ideas can help make your layout wiring more manageable.



24. Various taps to layout above.



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## CARL BLUM



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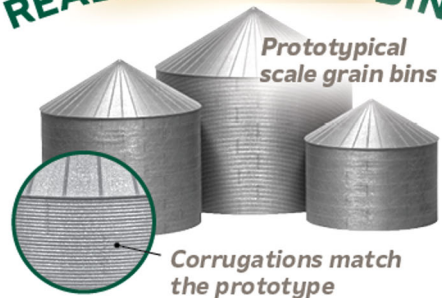
Carl was trained as a tool-and-die maker, and finished his career at Bosch Charleston as a Mechanical Engineer. He also retired early, and likes to travel. When home he works on various projects.

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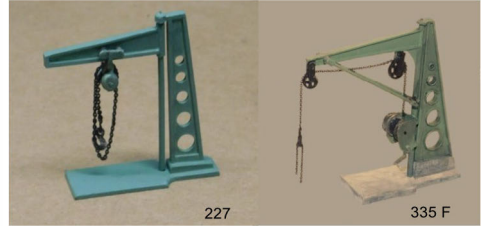


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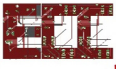


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**MRH's Floquil / PollyScale Paint Equivalents Conversion Chart - 1**

Floquil / PollyScale Color (approx.)	Model Number	Yulex / Modelx	WOOX/Max	Notes
Primer Gray	MR 4763	YWA F1505	16-12	
Engine Black	MR 4888	RL 20008 YWA F1.251	16-01	
Stream Frame Black	MR 4952	YWA F1.657	16-44B	
City Black	MR 4792	YWA F1.621	16-44*	
Weathered (Chemical) Black	MR 4920	RL 20023 YWA F1.644	16-05	
Reflex Gray	MR 4887 MR 4941	YWA F1.045	16-04	
Reflex White	MR 4873	RL 20004 YWA F1.035	16-02	
Grass Black	MR 4883	RL 20002 YWA F1.035	16-03	
Caboose Red	MR 4827 MR 4831	MR 4813 with 20% black pigment YWA F1.042 YWA F1.042	16-08	

\*Indicates a close but not exact match. All WOOX/Max paints are a sampling finish. Yulex Modelx and Yulex Modelx are the closest color matches to the original Floquil/PollyScale colors. Yulex Modelx is a shade lighter than the original Floquil/PollyScale color. Yulex Modelx is a shade darker than the original Floquil/PollyScale color. Color 4813 may vary from other shades of red to a close match to the original Floquil/PollyScale color. All colors are for medium to get some idea.

**MRH's Floquil / PollyScale Paint Equivalents Conversion Chart - 2**

Floquil / PollyScale Color (approx.)	Model Number	Yulex / Modelx	WOOX/Max	Notes
Tuscan	MR 4050*	YWA F1.036	16-15	
Reflex Orange	MR 4882*	YWA F1.063	16-09	
Reflex Yellow	MR 4879	YWA F1.026	16-10	
Roof Brown	MR 4884	RL 20009 YWA F1.249	16-16	
Railroad Te Brown	MR 4885	RL 20005 YWA F1.644	16-09** Closest match... See MR 4887 for 16-04	
Rail Brown	MR 4708*	RL 20001 YWA F1.039	16-13	
Red	MR 4825	RL 20005 YWA F1.039	16-102	
Concrete	MR 4876	YWA F1.042*	16-11*	
Agate	MR 4875	RL 20007 YWA F1.043	16-09*	

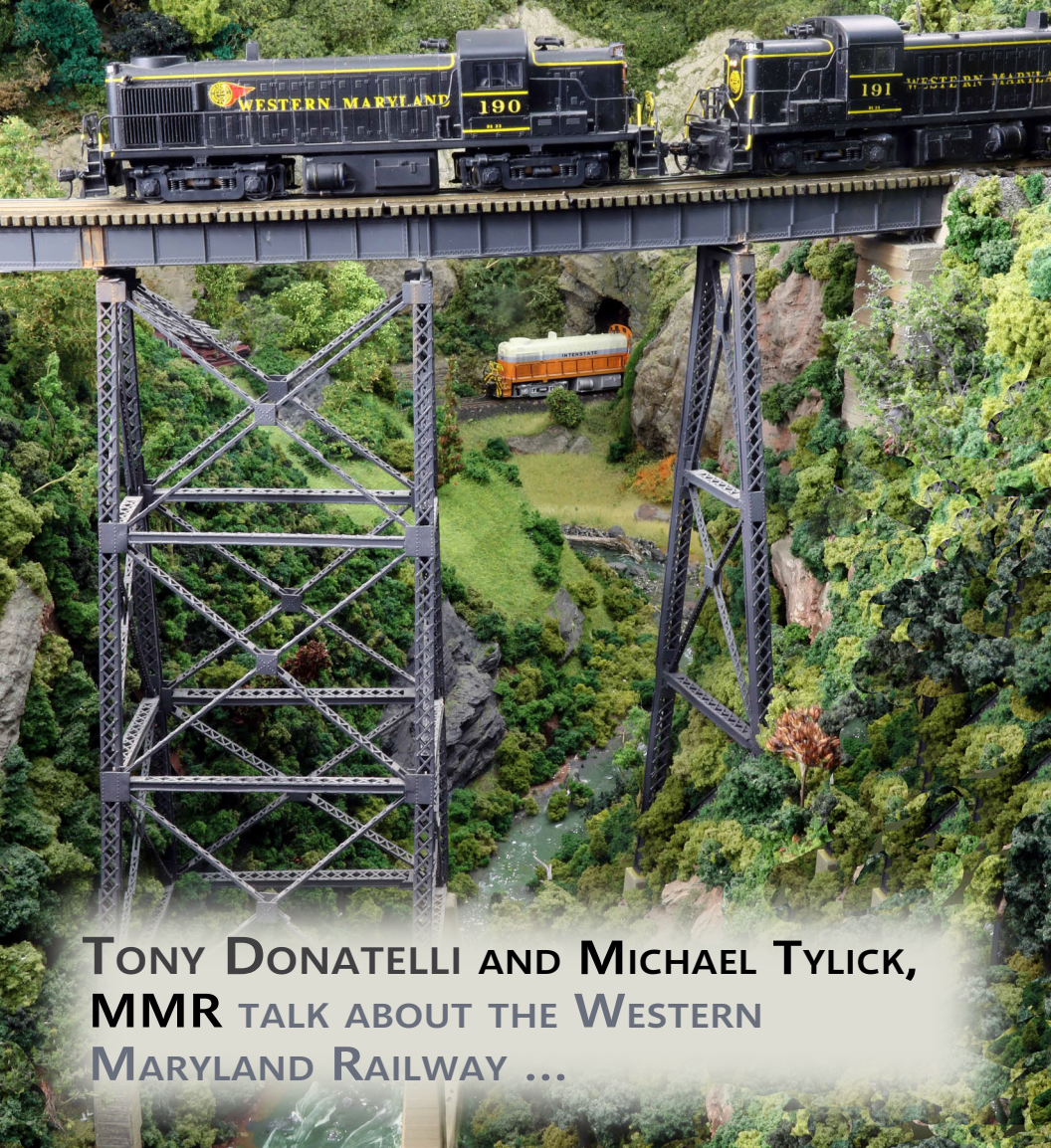
\*Indicates a close but not exact match. All WOOX/Max paints are a sampling finish. Yulex Modelx and Yulex Modelx are the closest color matches to the original Floquil/PollyScale colors. Yulex Modelx is a shade lighter than the original Floquil/PollyScale color. Yulex Modelx is a shade darker than the original Floquil/PollyScale color. Color 4813 may vary from other shades of red to a close match to the original Floquil/PollyScale color. All colors are for medium to get some idea.

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# THE TYGART VALLEY DIVISION



**TONY DONATELLI AND MICHAEL TYLICK,  
MMR TALK ABOUT THE WESTERN  
MARYLAND RAILWAY ...**



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1. RS3s no. 190 and 191 lead the CNRD interchange freight over Wilbur Hollow Lick Trestle. In the valley below, leased Interstate RS3 no. 30 leaves the tunnel with a local freight.

Model Railroad Hobbyist | April 2021

*Photographs by Doug Scott and Michael Tylick, MMR*



**THE TYGART VALLEY DIVISION OF THE WESTERN MARYLAND RAILWAY IS** a prototype-based freelance railroad operating as a north/south bridge line through the Tygart River Valley south of Elkins, WV. The Korean War ended (okay, an armistice was signed) in 1953, but the demand for coal remains strong. The early years of the conflict led to the reopening of several abandoned mining operations in the Tygart River Valley, resulting in a need for better transportation facilities.

Local mining operators chartered the Bailey Creek Mining and Transportation Co. as an independent railroad that utilized abandoned sections of the defunct Coal and Coke Railway, as well as trackage rights obtained from the Western Maryland Railway. The newly formed railroad was soon overwhelmed and unable to keep up with the rapidly increasing traffic. The directors of the BCM&T Co. voted to lease the line to the Western Maryland Railway, which elected to operate the line as the Tygart Valley Division until abandonment in 1960.

This is Tony's third version of an Appalachian coal hauler. He needed to dismantle the much-smaller first version because of relocation. With version two, he was more concerned with the look and feel of mountain railroading than operations.

Tony built version three to reflect his introduction to prototypical operation. The much-revised and expanded

prototype-based layout, known as the Tygart Valley Division, holds monthly operating sessions that require a dispatcher, two yardmasters, and eight operators to run efficiently. A computer uses JMRI Panel Pro to manage up to 16 individual trains during a three-hour operation session.

Tony convinced Doug and Mike that a trip to West Virginia would be worth their while, so they recently enjoyed a day of railfanning in the beautiful mountain scenery of the Tygart Valley. They had good luck finding CNRD – the westbound interchange freight – just leaving Carrollton Yard, and they were fortunate to encounter a few other trains along the way. Doug and Mike burned through a lot of Kodachrome film that day, and they hope you enjoy some of their favorite photographs of Tony's beautiful model railroad.



2. We heard interchange train CNRD was behind a pair of RS-3s with #190 on point that day. The train had left the yard a few minutes before we arrived, so we had to race over West Virginia's terrible back roads to catch up. Fortunately the CNRD had to wait for the Harrisdale turn – train HT2 – to arrive in Harrisdale to give the CNRD clearance for its long climb to Richmond. Tony makes effective use of photographic backdrops to add the illusion of depth to his scenery.





**3. While waiting, we had time to climb a nearby hill to photograph both trains. GP7 no. 21 works the HT-2, switching cars at Herrick Manufacturing.**

The Tygart Valley operates on code 83 and code 100 flex track laid on cork roadbed with a base of Homosote. All turnouts are by Peco. All turnouts on the main are equipped with Tortoise switch machines by Circuitron for dispatcher control.

Tony formed the scenery with a cardboard strip web that he covered with plaster wrap and finished with pre-colored Sculptamold to reinforce the plaster cloth. Sculptamold can be mixed with many different materials to create different textures, and it readily accepts cast-in-place rock formations.

Ground cover is a variety of materials, including ground foam in various sizes and colors and static grass. Tony layered the final texture with commercially available natural materials.

Tony makes the trees from natural materials he covers with finely ground foam. Lately, he has been using Super Trees coated with various colors of ground foam.



4. We thought we had plenty of time to get ahead of CNRD, but we were just in time to grab this shot at the curve around Olde Azud Farm.



5. Thanks to slow speeds on the Tygart Valley's curvy route, we were able to catch up with the Interchange as it crossed over the Wilbur Hollow mine. To our surprise, GP7 no. 22 was working the Wilbur Hollow Turn (WH-1) at the same time. All truss bridges are from Walthers.



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6. We raced to get ahead as CNRD slowly climbed the Hill. Tony cast the rock formations in place using combination of commercial and homemade rubber molds.



7. This must be our lucky day. During the short wait for CNRD, leased Interstate Railroad RS-3 no. 30 appeared on the branchline in the valley below with an extra to deliver a string empties to the Wilbur Hollow mine.



8. Driving like banshees, we were able to just get to these backwoods locations before CNRD, which was struggling with a heavy train and a stiff 2.5% grades.



9. Did those Alcos make a lot of noise climbing out of Wind Gap! The minimum mainline radius is 30".



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10. As we climbed to our location near the Wilbur Hollow Lick Trestle, the Interstate engine popped out of a tunnel far below.

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11. We hoped to get a photo of the interchange train rounding the curves on the Wilbur Hollow Lick trestle. We were not disappointed. Tony kitbashed his high trestles using Micro Engineering parts.



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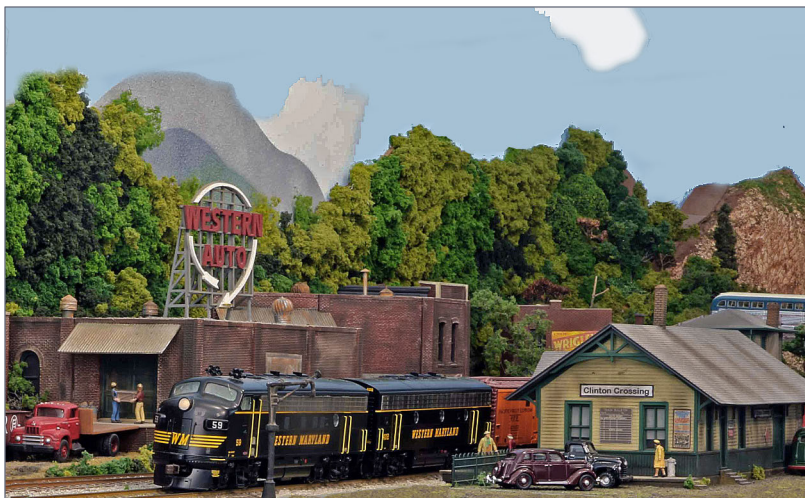
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12. Much of the Tygart Valley has high and low lines running through the scene, much as one would have seen along the prototype Baltimore and Ohio and Western Maryland Railroads in West Virginia.

For the towns of Clinton Crossing (upper level) and Midland (lower level) Tony built one section of his railroad as a more conventional double deck layout. The contrast makes for an interesting layout design and increased operational opportunities.





13. While our train stopped at Clinton for lunch, the fast perishable train PX-1 was coming through behind F3 no. 53, so we decided to forgo eating to follow him for a bit. Tony hand-painted the backdrop, and spray-painted clouds using New London Industries stencils.



14. A stop for switching at the lower level town of Midland gave us time to check out the local quarry and cement plant.



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15. We caught this Virginian Train Master pulling VX-11 (the Westbound Coal Extra) peeking through the hills.



16. We had to move quickly to catch PX-1 as it crossed the Tucker Hollow Viaduct just west of Clinton Crossing.



17. As luck would have it, a speed restriction held up PX-1 long enough for us to catch it crossing the Glenrock High Bridge.



18. Bailey Creek is nestled in the valley below Glenrock High Bridge. A local switcher sorts cars for the Ashley mine, the Bailey Creek Turn and other local customers.



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19. We knew we would never keep up with the PX1 after Bailey Creek, so we left it there and grabbed a late lunch.



20. We got to see a rare BL-2 engine switching the mine at Ashleyn. It was getting late by then, and we'd covered as much of the Tygart Valley Route as we could have hoped for.

## LAYOUT AT A GLANCE

**Layout Name:** Tygart Valley Division

**Owners Name:** Anthony Donatelli, Jr

**Scale:** H0

**Size of Railroad:** Two rooms, 15x18, 12x20

**Prototype Modeled:** Prototype-based freelance Western Maryland Railway

**Locale:** West Virginia

**Era:** 1956

**Length of Mainline Run:** 160 feet

**Minimum Track Radius:** 30 inches

**Maximum Grade:** 2.75%

**Type of Benchwork:** Open grid

**Layout Height:** 45" to 63"

**Type of Roadbed:** Cork over Homasote

**Track:** Flex track code 100 and code 83

**Scenery construction:** Plaster over cardboard strip base

**Backdrop:** Painted over drywall and/or styrene

**Type Of Train Control:** NCE DCC

**Number of Locomotives:** 25 – first-generation diesel

**Approx. Number of Rolling Stock:** 175



*See the rest of the article on the following pages ...*

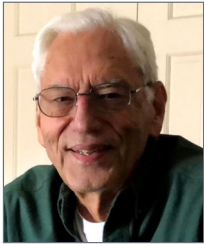


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## TONY DONATELLI



Tony and his wife Sheila live in North Scituate, Rhode Island. They have four children, seven grandchildren, and four great-grandchildren, with three more on the way. Like many modelers, he grew up with a Lionel layout in his bedroom.

He was attracted to mountain railroading in Vermont while attending Norwich University. Military assignments in Kentucky exposed him to the look and feel of steam operations in Eastern Kentucky and West Virginia mountains. The appeal of the Appalachian experience became the foundation of his latest layout. ■

## MICHAEL TYLICK, MMR

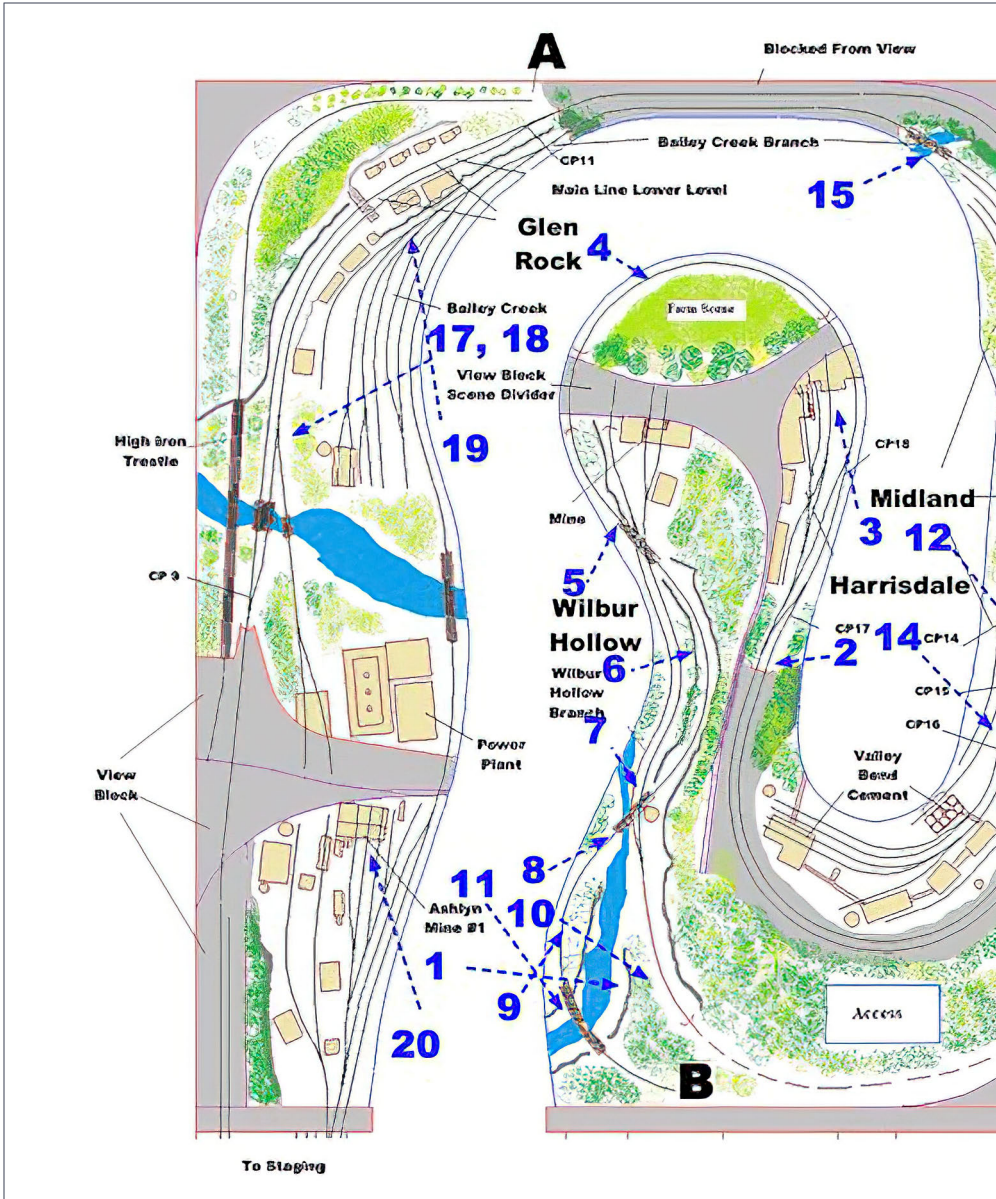


Michael has been fooling with electric trains for as long as he can remember. Never one to commit to a single large project, he has instead built a number of small layouts of various types and in various scales over the years. A retired inner-city art teacher, Mike has been a long-time contributor to many publications.

Railroad interests are leaning toward prototype rail and architectural photography. Much of his hobby time is now spent employed as a custom builder specializing in railroad structures and rolling stock.

Michael now lives in eastern Massachusetts and has an On30 railroad. He was awarded the honor of being named Master Model Railroader #523. ■





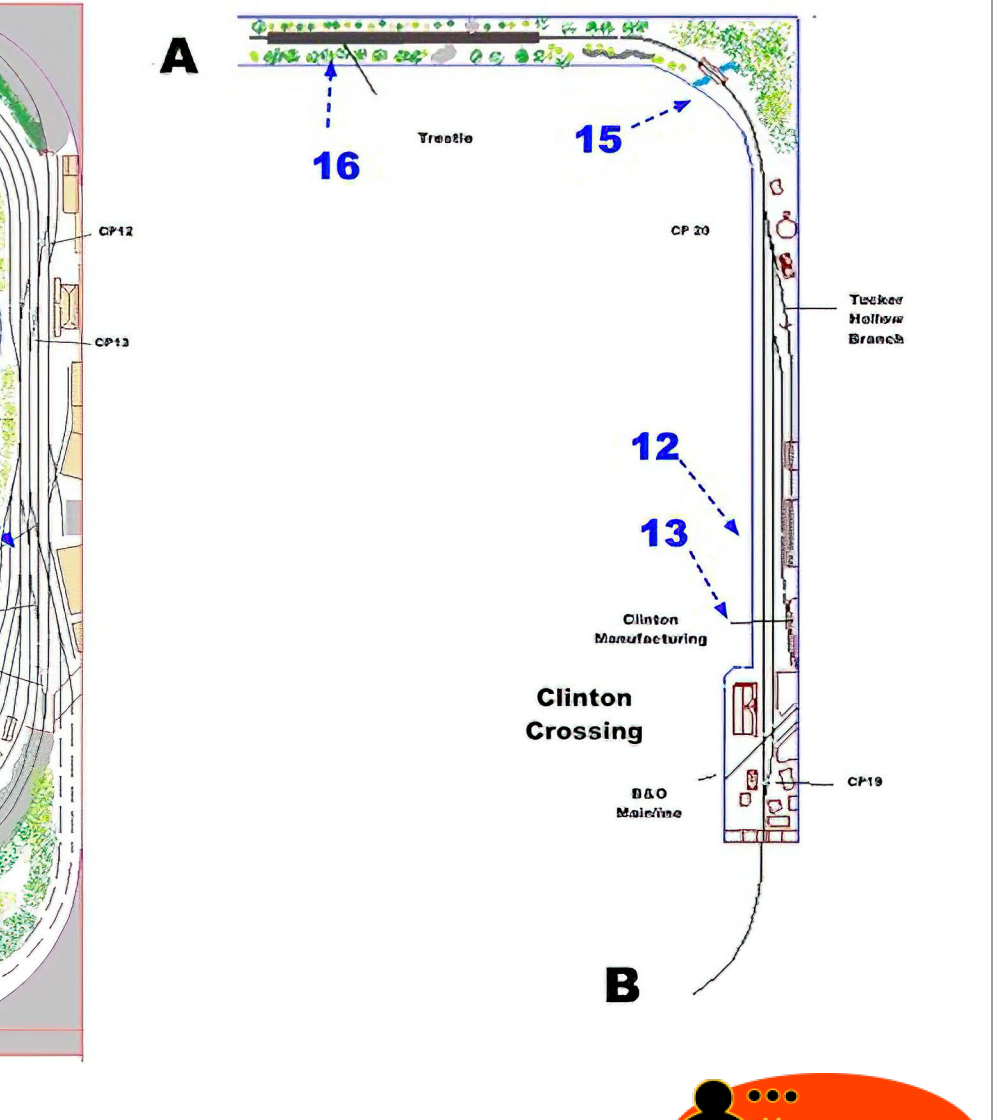
21. Layout map of the Tygart Valley Division. The layout operates as a continuous run between lower-level staging in Carrollton and upper-level staging in Richmond.



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22. Richmond (upper level) and Carrollton (lower level) staging yards. A helix connects the two staging yards, though only the dispatcher has authorization to use it. Tony uses a four-position car card system for car forwarding. The layout operates with NCE DCC, with plug-in and wireless handheld throttles.



23. Tygart Valley brass hat Tony Donatelli sits at his dispatcher's desk. Tony smiles often because model railroading is fun. It most certainly is when he's around.



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The Tygart Valley has 26 engines. Seven are RS-3s (including the leased Interstate), and other than a few oddballs, the rest are GP7s and GP9s. F units are just coming on board.

Operations are run once a month, usually on the first Thursday, with assignments made prior to the beginning of each session. The actual operating sessions are dispatcher-controlled using JMRI. The program displays on a computer screen the location of all trains on the mainline, and their movements from block to block.

Crews use two-way radios to communicate. Car cards with four-position waybills help crews forward cars. The dispatcher controls all mainline turnouts. Signals are a work in progress.

The dispatcher is a busy man! Although a computer in Tony's basement presently controls dispatching, plans are underway to allow remote dispatching. Don and Ed Juiare developed and used a similar system to allow Ed to dispatch Don's Rhode Island-based model railroad from his new home in Georgia.



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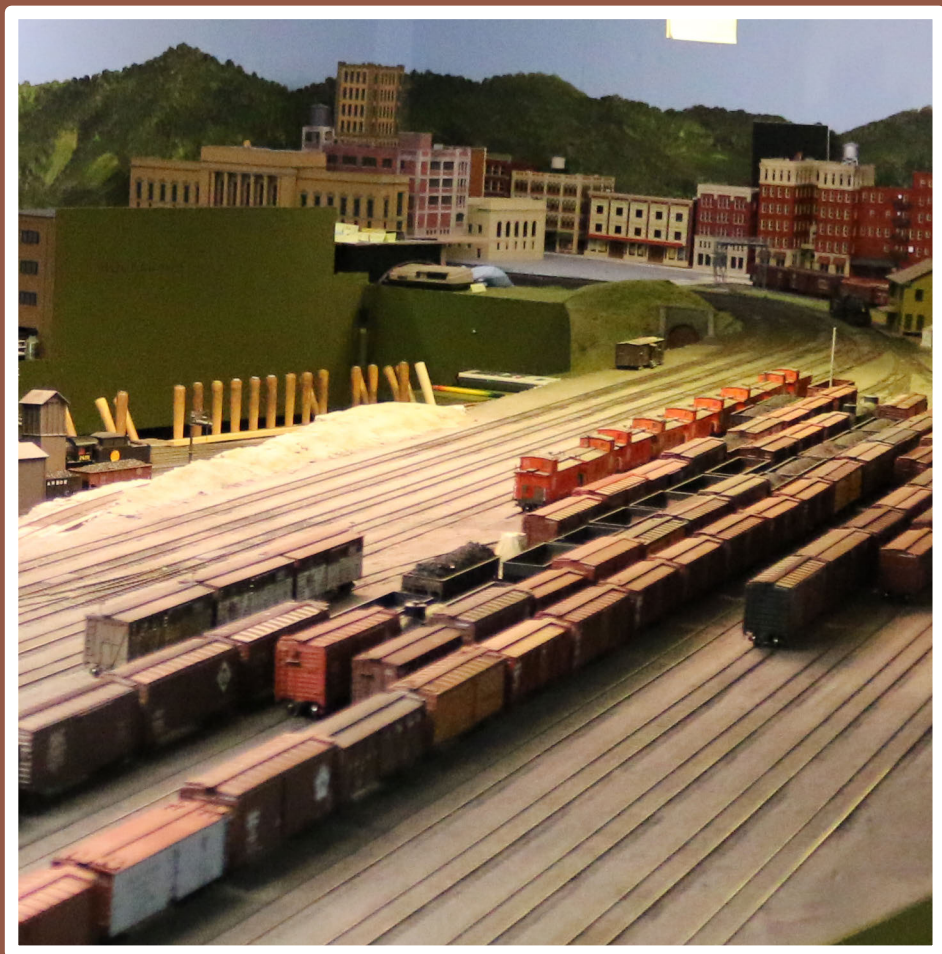
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# Ops for the rest of us

## Part 5



**DOUG MATHESON** SHOWS A PATH FOR  
EVOLVING TOWARD “HEAVYWEIGHT OPS”...



**THE OPERATIONS LIGHT APPROACH DESCRIBED IN THE FIRST FOUR PARTS** of this series provides a good path to operations for any layout. Perhaps the operations light approach has piqued your interest in pursuing even more prototypical operation, especially as you learn more about and come to appreciate the way real railroads operate.

Some might study a particular railroad prototype, including what traffic the road moved and how. Others might take a more general approach to learn about how various railroad employees in a given era did their work.

A growing appreciation of prototype practice can inspire you to increase the realism of operations on your model railroad. This can take three main approaches:

- 1) Increase the realism of each character or crew position
- 2) Include more roles to emulate other railroad employees
- 3) Make individual car movements more realistic

## **INCREASE THE REALISM OF EACH POSITION**

The principal roles in an operating session are the conductor and the engineer. You might provide guidelines and rules to your operating session participants to help them take on their roles in a more prototypical manner.

Consider engineers as an example. You might provide your engineers with guidelines regarding whistle signals, proper bell usage, dimming the headlight and/or ditch lights. You might even tweak your locomotives' decoder CVs for greater



momentum and different acceleration/braking effects for even greater realism and operating challenge.

In the May 2019 issue of *MRH Running Extra*, an article entitled “The Philosophy of Prototypical Ops” set forth some ideas for making the roleplaying of the engineer and conductor characters more prototypical. The article suggests “thinking like a railroader” is the basis for various activities and then goes on to break out the duties assigned to each role player in a two man crew.

## INCLUDE MORE CREWS AND TRAINS

Expand the relatively modest simulations of your ops light environment. If your layout can accommodate them, you can run more trains requiring more engineers/conductors. Adding just a couple of extra operating crews will expand the need for participants without a throttle in hand, the most obvious being a dispatcher to supervise the movement of trains.

## DISPATCHING CONSIDERATIONS

There are three main forms of dispatching that can be considered with the decision resting partly on how formal and realistic the dispatching should be and partly on the era and railroad being modeled.

## CTC

Most modern (post -1970) Class I railroads use Centralized Traffic Control (CTC) over most of their territory, especially trackage with a heavy volume of traffic. CTC centralizes all train movement with a Rail Traffic Controller (modern term for the dispatcher), who uses signals along the mainline to authorize train movements. Operators proceed accordingly.

Some advertisements in the model press from signal and electronics suppliers would have you believe that CTC is within



every modeler's grasp. The truth is that it almost any system demands significant time and expense to install, and dedication to understand and implement.

## TIMETABLE AND TRAIN ORDERS

For most of the 20th century, railroads used Timetable and Train Order (TT&TO) dispatching. This allowed safe movement of trains through unsignaled (dark) territory where the only means of contact between a train crew and the dispatcher was via station agents/operators along the route. The railroad's traffic and operations departments prepared a timetable that dispatchers could modify as needed to add extra trains or train sections.

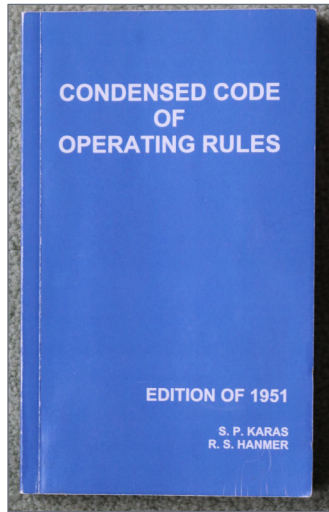
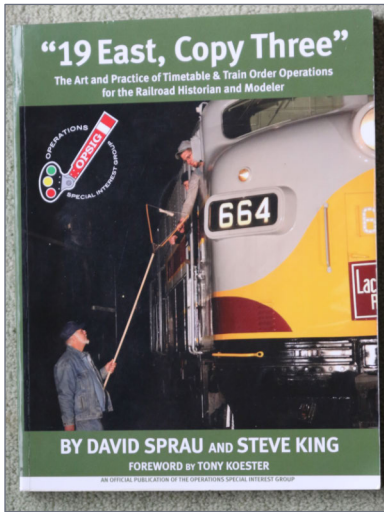
The dispatcher transmitted orders to station agents, who passed them in writing to train crews when they arrived at the stations.

A full and complete implementation in the model environment would include not only the dispatcher but agents at stations. To help modelers implement TT&TO, the OpSig of the NMRA published *19 East, Copy Three*, by David Sprau and Steve King as a companion to *Condensed Code of Operating Rules*, by Karas and Hamar [1]. These two books show how TT&TO in prototypical railroading might translate to a model railroad setting.

There are significant hurdles that make full implementation of TT&TO infeasible for many settings. Dictating and manually transcribing train orders takes about as long in model form as it does in the real world, but operating sessions unfold far faster, which complicates the task. Most layouts lack the space for desks to accommodate station agents, and recruiting station agents from session participants can be challenging.

Two simple steps can simplify TT&TO. First, train crews can use an FRS radio placed at a station to inform the dispatcher directly of the arrival and departure of their train. Second, the





1. In *19 East, Copy Three*, Sprau brings the prototypical expertise of a former railroad dispatcher, and King writes from a modeler's perspective about Time Table/Train Order usage. The *Condensed Code of Operating Rules* provides a condensed version of the Uniform Code that governs the activities of all railroad operating personnel.

dispatcher can transmit train orders directly to the crews in writing by having crews walk to the dispatcher's desk to pick them up. This lacks the realism associated with the dispatcher's dictation and operator's read-back of train orders, but it is a practical way to obtain the flavor of this historic approach without assigning station agents.

The Uniform Code was the rule book in use during the TT&TO period. A greatly simplified set of rules based on the Uniform Code is in use on Tom Hood's Canadian Northern – a copy of those rules can be available here: [ovgrs.org/simplified-rule-book](http://ovgrs.org/simplified-rule-book). This simplified set of rules is mainly applicable to the train crews, as the dispatcher must still follow the traditions set out in the full Uniform Code. Those who wish to adopt a

TT&TO dispatching environment may find this example beneficial in developing their approach.

## TRACK WARRANT CONTROL/ OCCUPANCY CONTROL SYSTEM

Since about 1970, railroads have implemented technology to allow direct radio contact between dispatchers and train crews. Most shortlines, and less densely trafficked parts of Class I railroads, have adopted the Track Warrant Control System (TWC) in the US or the similar Occupancy Control System (OCS) in Canada.

For TWC, crews speak directly to the Rail Traffic Controller (dispatcher) and receive verbal authority to occupy a specific section of track. Track authority lasts until the train reaches the termination point of that section, but dispatchers may set time conditions or provide other instructions. The crews and the dispatcher both keep written records – often with a form to check off conditions applying to track authority and to fill in blanks for specific details, all of which they read back to the dispatcher as confirmation of authority granted.

This approach fits well with most modelers' practices and is relatively easy to implement. Most modelers will opt for total verbal communications, while some will insist on written records using the same types of forms the prototype roads do.

A simplified version of portion of the Canadian Rail Operating Rules (CROR) covering the OCS is available here: [ovgrs.org/rail-traffic-control-on-the-ippw-rpm-2](http://ovgrs.org/rail-traffic-control-on-the-ippw-rpm-2). It is in use on Fred Mills' Ironwood, Peter's Pond and Western [2].

## OTHER POSSIBLE ROLES IN AN OPERATIONS SESSION

Without venturing into non-operating (and paper-oriented) positions, there are at least two other possible roles to consider in an operations session: a yardmaster and a tower operator.





**2. Bill “Sn3” Scobie sits in the Dispatcher’s office of Fred Mills’ garden railroad, the Ironwood, Peter’s Pond and Western, which operates using OCS. Bill uses an FRS radio to communicate with eight road crews and three yard crews. He uses a magnetic board to keep track of occupancy permits he has issued.**

A model railroad can usefully employ a yardmaster if there is sufficient yard traffic. A yard with as few as a half-dozen double-ended tracks may require two yard crews – one working from each end – to classify inbound cars and assemble outbound trains.

In such cases, a yardmaster may be useful to supervise and coordinate classification activities, direct incoming trains, and do other yard-related work. However, a yardmaster may be impractical because of insufficient aisle space or the number of available operators.

Many model railroads include at least one junction where a branch line diverges from the main or where the main splits into two routes. In the days before CTC, prototype railroads used interlockings to safely control train movements through junctions.

If you are interested in signaling, the development of an interlocking is much less onerous than full CTC implementation, and would serve as the basis for a tower operator. Some people specifically plan their layouts around the concept of a busy junction. For such layouts, the tower operator is a key character to include in operations.



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## MAKING THE MOVEMENT OF INDIVIDUAL CARS MORE REALISTIC

A shipper's need to move goods drives rail car movement on prototype railroads. Normally, a shipper contacts a local railroad agent to order empty cars to ship a particular good. The agent searches for a suitable car or cars which he orders to the customer's loading track.

The agent generates a waybill to specify the routing of the car, any special services required, the rate of payment, and any other relevant information. One copy of the waybill accompanies the car on its journey from shipper to consignee.



Emulating this flow has long been the holy grail of car-forwarding systems on model railroads. Doug Smith's landmark 1961 article in *Model Railroader* popularized car card/waybill operations among model railroaders. There are many guides for implementing car cards/waybills on a model railroad – one of the best is a video tutorial: [www.youtube.com/watch?v=XWpTxCqxPq0](http://www.youtube.com/watch?v=XWpTxCqxPq0).

**3. Hochelaga Yard on Tom Hood's Canadian Northern has 12 classification tracks plus six arrival/departure tracks, a caboose track, and a "cleanout" track. There is also a 34-stall roundhouse and a seven-track passenger terminal. A yard as big as this requires multiple operators. Typically the yardmaster and hostler/passenger terminal switch crew occupy the aisle in the middle, while two more crews run locals from the aisle in the foreground.**

The car card/waybill system is the closest to prototypical practice, though it comes at a cost. Car cards require creating a piece of paper for every car on the layout, and up to 10 waybills for each car to guide forwarding. Operators must carry a stack of these cards around. Layout owners must also provide boxes and work spaces near yards and industries for operators to sort, file, and exchange their car cards [4].

Computer-generated switchlists [5] provide a crew with a single-page summary of the drops and lifts their train must make. They are easier for crews to work with than car cards/waybills, though they demand significant data input for each car and siding. The system also has a steep learning curve.



4. Greg Stubbings has installed boxes – one for each yard track – to hold car cards for each car in this yard on his CN Lindsay Division HO layout. A narrow shelf beneath the boxes gives space for paper clips and tags the Lindsay operator may need. *Photo courtesy of Greg Stubbings*



GHWest-FG

- 1 -

May 6, 2019 2:26 PM

Ironwood, Peter's Pond & Western

Manifest for train (327) GHWest-FG

Valid 5/06/1960 14:24

Scheduled work at GH West Staging, departure time 09:30

[ ] Pick up PGE 4006 Boxcar 40' Brown E from West Staging I Fred  
Train departs GH West Staging Westbound with 1 cars, 44 feet, 26 tons

Scheduled work at Glen Hammond, arrival time 09:34

[ ] Pick up CN 487544 Boxcar 40' Brown E from East Interchange  
[ ] Pick up TBRR 46339 Flatcar 40' Orange E from West Interchange  
[ ] Pick up B&O 46008 Boxcar 40' Silver E from West Interchange  
[ ] Pick up HERX 2001 Boxcar 40' Brown E from East Interchange Gord  
[ ] Pick up ONT 91013 Boxcar 40' Blue E from West Interchange  
Train departs Glen Hammond Eastbound with 6 cars, 264 feet, 156 tons

Scheduled work at Peter's Pond, arrival time 09:53

[ ] Pick up CP 250299 Boxcar 40' Brown E from Cedarrock Supply  
[ ] Pick up SOO 68297 Gondola 40' White E from Cedarrock Crusher  
[ ] Set out CN 487544 Boxcar 40' Brown E to Team Track  
Train departs Peter's Pond Westbound with 7 cars, 308 feet, 182 tons

Scheduled work at Bell Junction, arrival time 10:06

[ ] Pick up TT 3 Woodchip 40' Green E from Stuart Yard  
[ ] Pick up TBRR 46333 Flatcar 40' Orange E from Stuart Yard  
[ ] Set out TBRR 46339 Flatcar 40' Orange E to Interchange  
[ ] Set out B&O 46008 Boxcar 40' Silver E to Loco Fuel  
Train departs Bell Junction Westbound with 7 cars, 308 feet, 182 tons

Scheduled work at Firgrove, arrival time 10:22

[ ] Set out TT 3 Woodchip 40' Green E to Lake Nipissing RR  
[ ] Set out HERX 2001 Boxcar 40' Brown E to Lake Nipissing RR Gord  
[ ] Set out CP 250299 Boxcar 40' Brown E to Lake Nipissing RR  
[ ] Set out TBRR 46333 Flatcar 40' Orange E to Ralph Yard  
[ ] Set out SOO 68297 Gondola 40' White E to Ralph Yard  
[ ] Set out PGE 4006 Boxcar 40' Brown E to Team Track Fred  
[ ] Set out ONT 91013 Boxcar 40' Blue E to Watkins Millwork

Train terminates in Firgrove

**5. A typical JMRI-produced switchlist clearly shows an operator what action he must take for each car in the train.**



Despite its drawbacks, I recommend computer-generated switchlists (using JMRI software) simply because they make life easier for the crews who do the switching. JMRI [www.jmri.com](http://www.jmri.com) is a powerful open-source software free for download. It has a very active user group [groups.io/g/jmriusers/topics](https://groups.io/g/jmriusers/topics) so crowd-sourced help is always available for you as you ascend the learning curve.

## MOVING TOWARD HEAVYWEIGHT OPS MEANS MORE PAPER!

Unfortunately, increasing the scope of operations inevitably adds paperwork. In part, this is because it emulates a paperwork intense prototype, but also because more actors require greater coordination. And as the number of crews increase, so does the need for ops session “management.”

If you’re just beginning your involvement in ops sessions, start slowly. Operate on others’ layouts, observe, and leave the management and paperwork problems to them.

Only when you feel comfortable should you move beyond operations light on your own pike. Add complexity to your operations slowly and incrementally. Feel free to stop when you feel you have accomplished your operations goals. ✓



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## DOUG MATHESON



Doug authored a chapter in the OpSIG (Operations Special Interest Group) publication, *A Compendium of Model Railroad Operations*.

Doug has been participating in ops sessions for decades. He has also presented NMRA clinics on ops, organized ops sessions for a number of owners of large model railroads, and served on a model railroad as a dispatcher using Timetable and Train Orders, and on another layout using the Occupancy Control System (Canada's version of Track Warrants). These all fit into the more heavyweight category of prototype-based operations.

At the same time, Doug has built and operates a very modest HO scale layout. He has also long modeled in Fn3 in the garden, including running live steam.

Doug thanks Bruce Chandler for his help in allowing his Jackson and Burke RR to be used as an example and inspiration for this article. N scale modeler Mike Dawson provided insightful comments on operations in a scale where reporting marks are difficult to read. A big thanks also to a number of Doug's fellow members of the NMRA (Niagara Frontier – St Lawrence Division) who offered many suggestions and edits along the way. These include Alex Binkley, Mike Hamer, Chris Lyon, and Peter Nesbitt. In particular, Mike Hamer also allowed his Boston and Maine RR to serve as an example.

Besides operations, Doug's other railroading interests include the history of passenger travel by rail, and the historical development of signaling systems.

Doug retired from Canada's federal public service and lives in a rural area south of Ottawa, Ontario. ■



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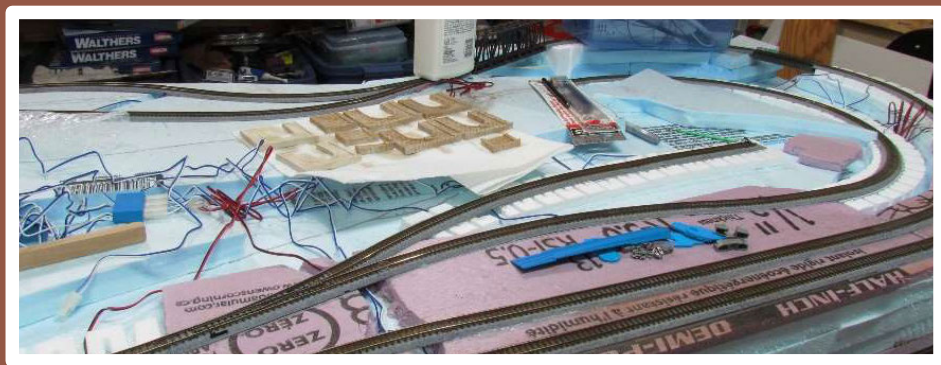


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# BUILDING A SMALL N SCALE LAYOUT PART 1



Model Railroad Hobbyist | April 2021

DAVE KILBORN SHOWS US HIS PLAN FOR  
A “SCENIC AND RELAXED” LAYOUT ...



**WHEN I WAS 16 IN THE LATE 1980s**, I began construction on my first layout, the “Scenic & Relaxed,” which I patterned off of one of the ideas in Atlas’ *Nine N Scale Model Railroads* by John Armstrong and Thaddeus Stepek [1]. I loved the dramatic scenery it promised for a three-by-six-foot space, but I couldn’t quite get the layout running reliably, so I scrapped it. I’ve always meant to give the “Scenic & Relaxed” layout another go, and the COVID-19 pandemic that has many of us spending more time at home gave me the opportunity.

I opted for Kato Unitrack over Atlas because of its bulletproof reliability, and I used curves as broad as possible. I simplified

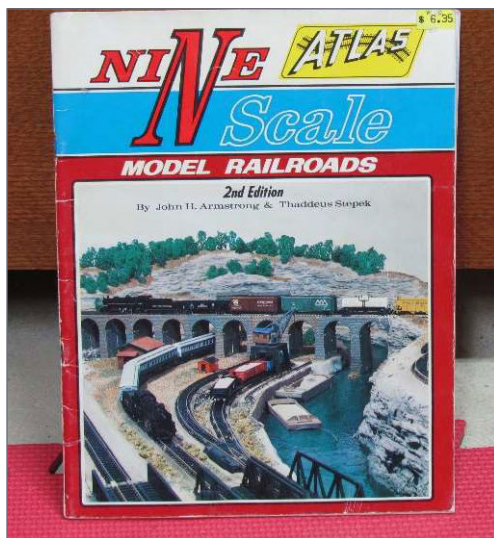
# BUILDING A SMALL N SCALE LAYOUT | 2

the track plan in favor of more dramatic scenery, and used lightweight foam for the benchwork and rockwork. Where possible, I used items I have on hand (foam, scenic materials, etc.) to save costs.

For this layout, I wanted to be able to railfan trains running through mountain scenery with tunnels. I had wanted mountain scenery for my HO layout, but given everything else I wanted in that layout and spatial constraints, it just didn't make sense. N scale allows you to do so much in a small space, and now with lots of sound-equipped options, I just wanted to get back into it.

## THE PLAN

I turned to XTrackCAD track-planning software ([www.xtrkcad.org](http://www.xtrkcad.org)) to plan the trackwork. After reviewing my archive of track plans, I found that I had already done a plan for the Scenic & Relaxed about 12 years ago that used Kato Unitrack. What luck! I made a few small changes, but I had a track plan in about an hour [2].



1. I purchased Atlas' *Nine N Scale Layouts* in 1988 and spent hours poring over it. I finally decided on the Scenic & Relaxed layout as I couldn't afford a lot of switches, and I loved its scenery aspects.



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XTrackCAD has an “items list” feature that calculates the track needed to build your plan as you draw it, which makes creating a shopping list easy. All I had to do was compare my list to the track packages offered on Kato’s website. I quickly came up with the number of packages I would need, and the part numbers.

I noticed that in several cases, I would use only one piece of track out of a package. I went back to XTrackCad to tweak the plan to make better use of each track package and minimize the overall number needed. I managed to shave \$30 off my estimated track expenses, and was ready to place an order with my favorite dealer.

I wanted to get started building the layout base before the track arrived, which meant I needed to purchase some sheets of foam. This required some thinking ahead, since the maximum size I can fit in my vehicle is 2' by 6', which is considerably smaller than the 2'x8' size I found at my home center. I figured out how I would use the sheets before going to the home center, and brought my knife, a T-square, and a measuring tape with me.

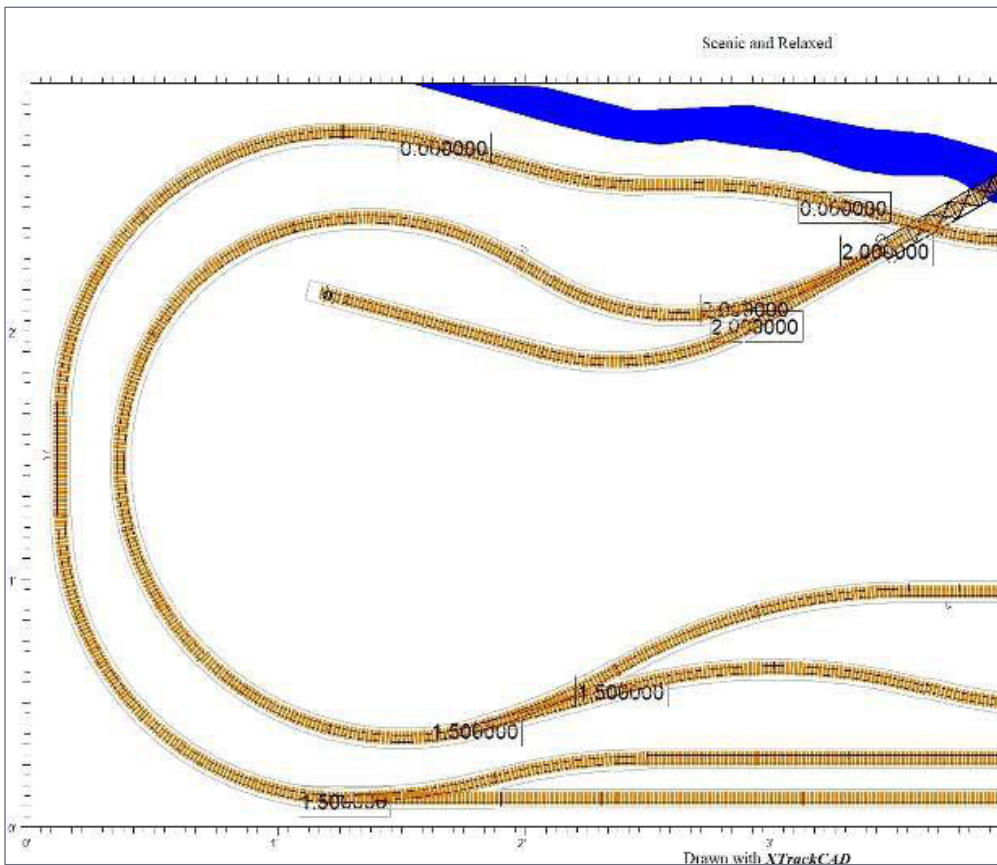
I determined I needed one full 2'x6' piece and three 2'x3' pieces of 1" foam to make the initial base. I purchased the sheets of foam, brought them to my car, and used the trunk as a sawhorse to measure, score, and snap the pieces to size before loading them into the car. I bought a couple of extra sheets to build up the mountain, and cut them each into three sections (two 2'x3' and one 2'x2') that I could fit in the car.

Once home, I lined-up three 2'x3' sections side-to-side and layered the 2'x6' section on top, leaving a 1'x6' area single-layer. I knew I wanted to put a riverbed into the 1'x6' area, but I wanted to wait for the track to arrive before working out the particulars. I roughed-up the foam to be glued with a wire brush to give the surface a little more tooth.

# BUILDING A SMALL N SCALE LAYOUT | 4

Normally, I would use foam-safe construction adhesive, but the store was out of stock and all I had available was Elmer's Glue. Elmer's Glue is safe for foam, but it takes a long time to dry, and you have to be careful not to use too much near the edges so it doesn't ooze out [3]. Since I had at least a week before the track would arrive, I wasn't too worried about these drawbacks.

While the glue dried, I printed the track plan 1:1 and taped it together, making sure the measurements lined [4]. Just to test it, I laid it on the drying benchwork. It fit almost perfectly! The track plan showed me where everything should go, so I could



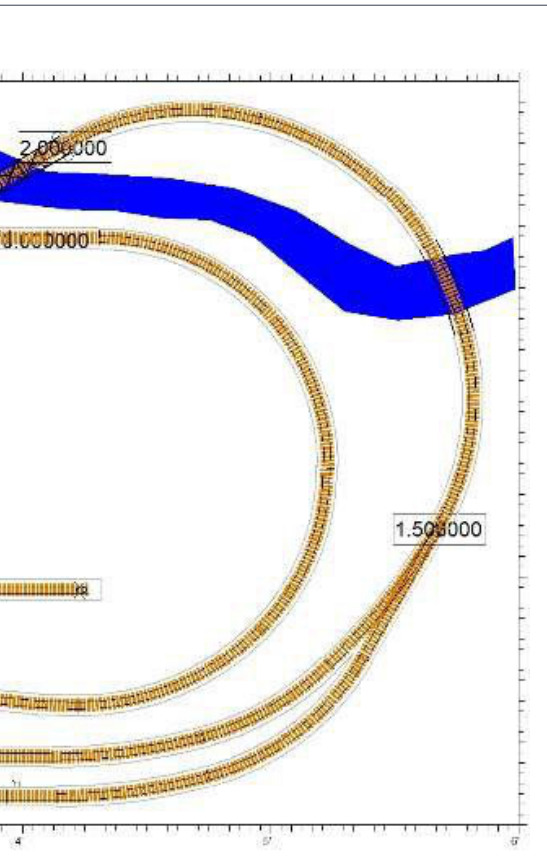
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begin planning how to place the river and fill in the 1'x6' area of single-layer foam.

I knew I wanted my river bottom to be the surface of the bottom layer of foam and that I wanted the lowest level of track to be 1" up from that. I added another piece of foam to frame the river on one side of the layout, but left the river until after the track arrived so I could make sure everything would fit as expected. I continued to build up the layers of foam according to the plans, using some extra Woodland Scenics risers I had on hand [5].



**2. My final rendering of the track plan in XTrackCAD. This isn't a switching layout, but there are two spurs if I want to add some switching. The longer passing siding is for a small passenger depot.**

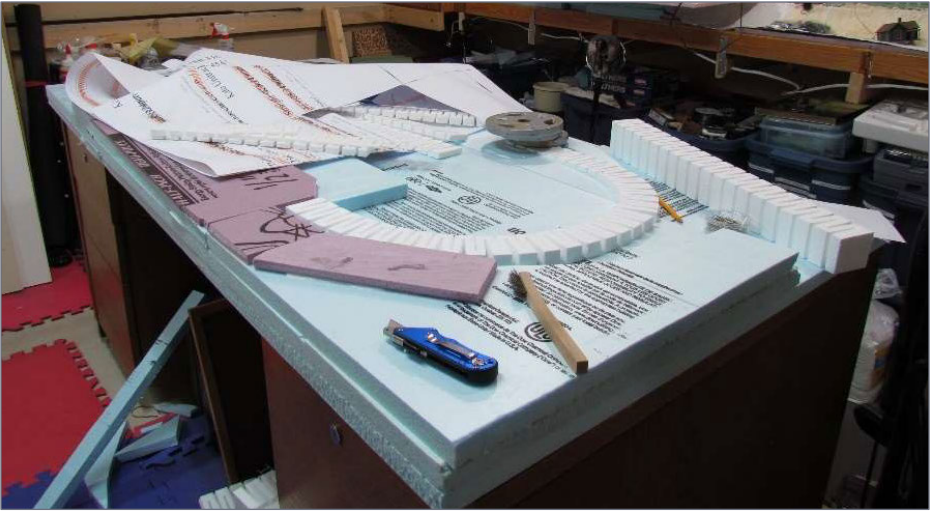




3. To start the foam base, I put three 2'x3' pieces on top of the 2'x6' piece and glued them in place. I used weights to hold the foam down while drying.



4. I laid out the track plan 1:1 on the base to see how everything lined up. This gave an indication of where I should start building up the foam.



5. I built up the layout base using the XTrackCAD 1:1 printout as a guide. I used Woodland Scenics risers and extra pieces of foam, as well as the extra foam I purchased.

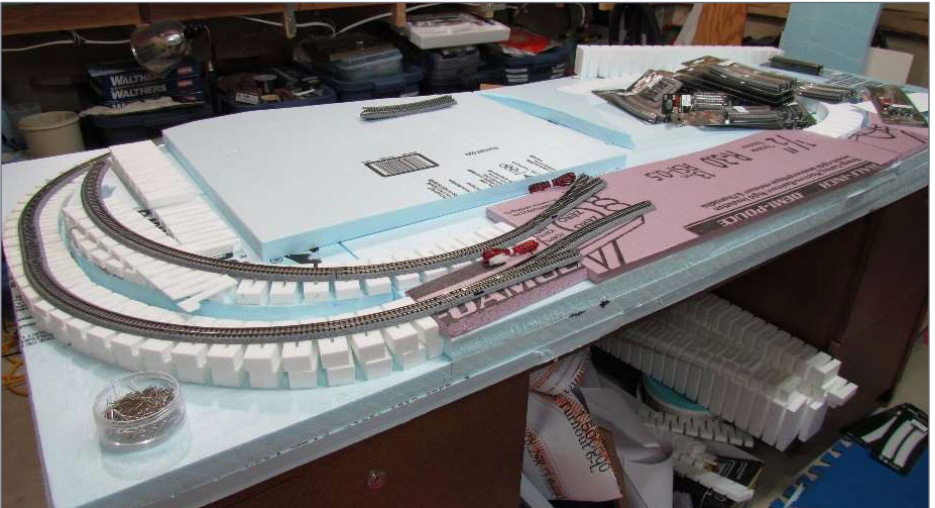
The Woodland Scenics grade risers are very handy for getting a quick, accurate grade, but they don't provide any vertical easement. I build easements by using scrap foam to shim the risers, or I file a gentler transition in the foam on the upper end of the grades. I use stick pins to hold the foam pieces in place so I can easily adjust them to fit the track before securing them with glue [6].

I was pleasantly surprised that the track arrived less than a week after my order. I was already at the point where I could lay out most of the track, and figure out the finer details for completing the base [7]. The XTrackCAD drawing made it so easy to lay the track where I wanted it. This initial layout of track allowed me to finalize the risers' locations so I could secure them in place.

Now that I had all the track in place, I discovered an error in my ordering. I needed two packages of the 12-<sup>3</sup>/<sub>4</sub>" radius, 45-



6. I stacked risers and grade pieces to match the track plan, and secured them with stick pins so I could adjust them easily until everything lined up satisfactorily.



7. I laid out all the track to finalize the riser locations. Once I had the risers in place, I glued them to the base and used stick pins to hold them while the glue dried.



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degree curves, but only purchased one. I could either put in another order and wait another week, or I could see if a local hobby shop had the pieces in stock.

The local hobby shop didn't have any 45-degree curves in stock, but they did have three 15-degree curves in stock, which would do. After a quick trip across town, I had all the track in place. I connected a set of wires up for test run to verify that nothing was too steep or needed adjustment [8].

It was quite exciting to have the basic layout together and trains running in just seven days!

## WEATHERING TRACK AND BRIDGES

For me, nothing says "model railroad" like unpainted and unweathered track. As tempting as it was to simply secure the track and wire everything up, I needed to weather it piece-by-piece first. It is much easier to weather and paint individual



8. I tested the track before securing everything in place. Thankfully, there were no significant issues, only a couple of places I needed to file a bit more to improve the vertical easement.

pieces of track on the workbench than to try to do it in place around the layout. Bridges especially are much easier to weather on the workbench than on the layout.

I first attempted to paint the rail with a brown earth color from Vallejo Model Air, but the paint flaked off when I applied weathering powder. PolyScale Rail Brown and Railroad Tie Brown provided much better coverage on the rails, and stood up better to weathering powders. I used disposable micro brushes for the work since they are a perfect size and hold just enough paint without dribbling over the ties and roadbed [9].

After painting the rails, I used another micro brush to push A.I.M. Dark and Medium Earth weathering powders onto the rail for some variation in color and texture. Next, I used these same weathering powders with a wider blending brush down



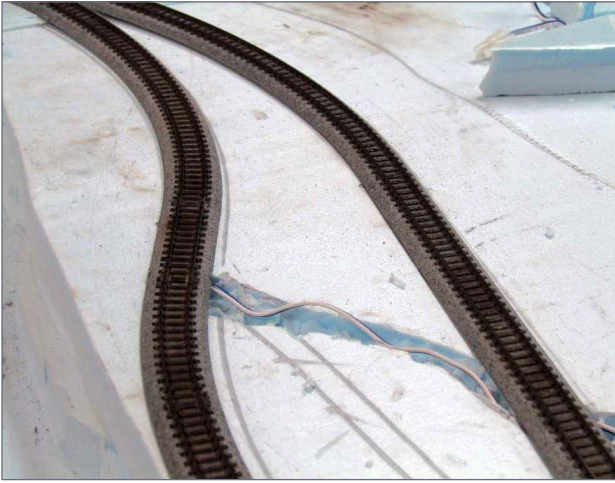
9. My track weathering tools – a Peco “eraser” track cleaner, Woodland Scenics track-maintenance pads, micro brushes, a large blending brush, some old Poly Scale Railroad Tie Brown paint and A.I.M. weathering powders. Weathering the N scale Unitrack is much easier piece-by-piece away from the layout. I use a box, and work on it while watching TV.



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10. My track weathering proves that Unitrack can look less uniform and more realistic with just a bit of effort. I liked how easy it is to pull apart to work on away from the layout and reassemble when the weathering is complete.

the middle of the track between the rails to get some dust and grime on the ties and “ballast.”

Where I applied too much, I balanced it out with some white or light gray weathering powder. This can be tricky as it is hard to know how much weathering powder you scoop up in your brush. This step is tedious but for me is well worth the effort [10].

Once all the weathering was complete, I used a Peco track cleaning “eraser” to clean the tops and inside edge of the rails, then white maintenance pads from Woodland Scenics to polish up the rails. This process for all the track (excluding tunnel areas) took me about nine days to complete, working about one-to-two hours per day.

With the track weathered, I ran my graphite stick along the inside edge of each rail and temporarily connected the wiring again for a test run with a locomotive. Wherever the locomotive hesitated or stalled, I examined the area and either scrubbed with the maintenance pad, or added a touch of graphite to the rails. After about five minutes, the loco ran around the entire layout at moderate speed with no hesitation.

I used a combination of the PolyScale paint/A.I.M. Weathering powders to weather the bridges. Pan Pastels are fantastic to subtly build up the weathering, and their varying color tones provide a natural look [11].

## WIRING AND SECURING TRACK

After drilling holes for the track wires, I secured the track to the layout with the same clear silicone caulk you would use in a bathroom. I chose a low-odor variety that allows about 30 minutes of working time. I put the silicone on the underside of the Unitrack and pushed it down, then weighted it until dry [12].

I chose the silicone for a couple of reasons. For one, I had some on hand. For another, the flexible nature of silicon means that if I ever need to pull the layout apart, it should be easy to stick a putty knife under the track to pull it up.



11. The “west” bridge weathered with Poly Scale paint and A.I.M. weathering powders on the rails, and various Pan Pastels on the rest of the bridge. I may detail these further down the road, but it was nice to eliminate the shiny plastic look.





**12. I used silicone caulk to secure the track to the foam. Silicone is flexible and easy to work with.**

I initially planned to route all wires to a common point on the layout where I would use Kato's three-way extension cords to splice them into one common pair to attach to my NCE system or LokProgrammer. I wanted to place a power drop after each turnout.

Unitrack is great for continuity, so wiring every section as one would wire flex track is unnecessary. I cut a central drop location into the foam under the mountain, along with channels to run the wires to the location. I covered the channels with masking tape [13].

I thought this was an elegant solution, though it proved impractical. First, I needed some sort of "legs" under the layout so I could run the wire out and connect them easily without squishing them under the layout. Second, having everything stuffed into a small access hole in the bottom of the mountain made troubleshooting a real challenge.

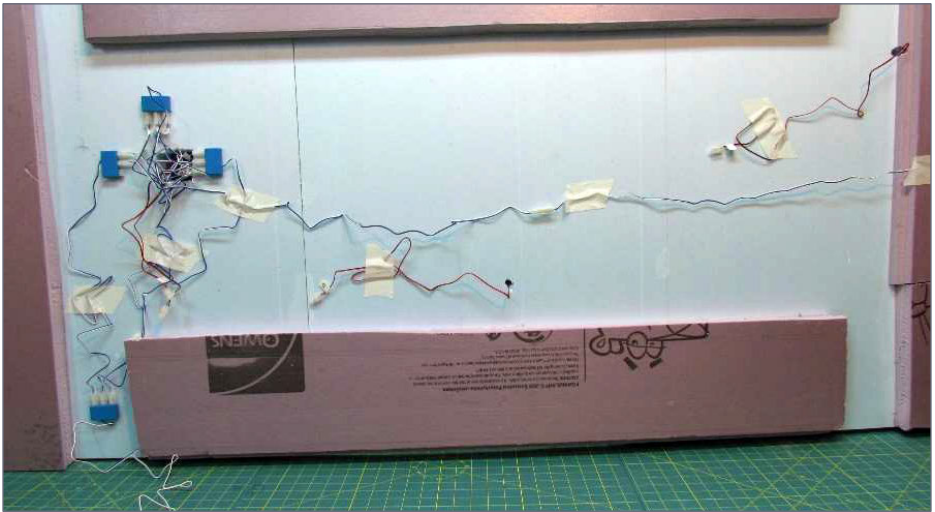


To address these issues, I put 1.5" foam "legs" underneath the base to provide clearance. I still put most wires through the common access hole under the mountain, but I also drilled a few holes for two of the turnouts, and added a power drop on the far end of the layout.

With everything connected, I secured the three-way extension cords to the underside of the layout with double-sided tape [14].

The last wiring-related items were the switch machines, and I have yet to decide how to handle those. Unitrack switches come pre-built with a switch machine in the roadbed. You can operate them manually, using a Kato proprietary switch controller, or you can run them over DCC with something like NCE's Switch-Kat.

I am not a fan of the Kato switch controllers. They are bulky, and I would have to build a control panel for them if I wanted to automate them.



14. I routed all power drops to the three three-way connections on the left, then routed those three to a fourth three-way switch on the bottom left for connection to my NCE DCC system or my LokProgrammer.



I bought a Switch-Kat for testing, but so far I'm operating the switches manually. At some point I'll decide, but since everything is accessible under the layout, wiring should be simple either way.

I used a label maker to create a label for each wire drop – numbers for the power drops and letters for the switch machines. I've added the numbers to the layout plan in XTrackCAD for reference if I should ever need to troubleshoot a problem down the road.

With wiring complete and the track secured and cured, once again I rewarded myself by running a loco around the track to verify everything was still functioning as it should. It is a great feeling to get to this stage, but this was the easy part. We'll conquer the scenery in Part 2.

★★★★★  
**RATE THIS ARTICLE**

## DAVID KILBORN



David lives in Saskatoon, SK Canada with his wife, his mother and his two adult children. He has loved model railroading since four years old, when he saw his dad's model trains.

Issues with dexterity and vision in 2013 resulted in a switch from N scale to HO scale, but he missed N scale. When the Covid-19 lockdown hit, he decided to build this N scale layout that he wanted since he was 16.

David has worked at a remote mine site for 18 years, supporting management systems and regulatory compliance. He loves to travel, and looks for opportunities to do so by train. He plays bass guitar and dabbles in writing music and arranging. ■

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# SAVVY MODELER *Online*



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# APRIL NEWS

column



Model Railroad Hobbyist | April 2021

**RICHARD BALE AND JEFF SHULTZ**  
REPORT THE LATEST HOBBY  
INDUSTRY NEWS ...



## INDUSTRY NEWS

### Atlas expands O scale line with purchase of M.T.H tooling

Since announcing plans to close his business and retire, **M.T.H.** founder Mike Wolf has successfully negotiated the sale of production tooling for his products to two well-established model railroad manufacturers. Earlier this year it was announced that **ScaleTrains.com** had reached an agreement to purchase the tooling for M.T.H.'s HO and S scale line of models. (See MRH March 2021).

In a recent announcement, **Atlas** reports that it has completed the purchase of all the molds and associated tooling for O scale equipment previously manufactured by M.T.H. The acquired O scale Premier line tooling covers 25 diesel locomotives, 25 freight cars, and 25 passenger cars that include 19 lightweight streamliners and six heavyweight cars. The purchase includes tooling for MTH's RailKing Line of O scale accessories. Atlas has also obtained a license for the MTH Proto-Sound 3 sound and control electronics boards, which allows control via DCS (Digital Command System). Part of the license will give Atlas the option to sell DCS components as well.

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**THE LATEST MODEL RAILROAD PRODUCTS, NEWS & EVENTS**

## CLUB CARS



The **Soo Line Historical Society** is selling a Lake Superior & Ishpeming 50-ton twin-bay hopper car with offset sides. Produced by Accurail, the HO scale kit is

based on an AAR prototype built by Bethlehem Steel in 1936. For additional information visit [www.sooline.org](http://www.sooline.org).

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**Cincinnati Division 7 of the NMRA MCR Region** is selling a kit for a 40' USRA single-sheathed boxcar. The HO scale model is based on a group of 1000 prototype cars

delivered to the C&O in 1919. Like the prototype, the model has 5-5-5 Murphy steel ends, 6' National wood doors, and Andrews trucks. The HO scale kit was produced by Accurail. For additional information visit [cincy-div7.org](http://cincy-div7.org).

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## NEW PRODUCTS FOR MULTIPLE SCALES



**Model Train Technology** has announced several new products, including the Precision Detector, capable of detecting between 6mm and 150mm with 1mm precision. DIP switches are used to specify the scale and it outputs OPEN DRAIN to GND when

triggered. The output can be inverted as well and has an adjustable trigger timeout time of 0-30 or 31-60 seconds. A

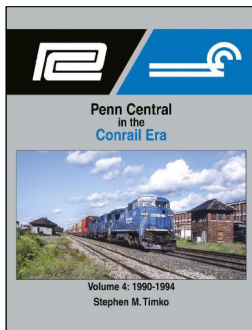
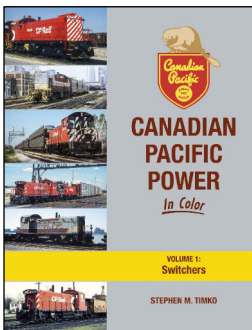
model of an electrical box that can be used to cover the sensor is included.



The second new product is a fiber and LED Block Signal Controller. Using the Precision Detector to trip the Block Signal Controller, the light being shown will change to the next in the rotation. After a prescribed (0-30 seconds) time, the light will change again, until it returns to the original color. Signals are configurable with 2 (Red/Green), 3 (Red/Yellow/Green), and 4 (Red/Yellow/Yellow Blink/Green) aspects available. If the signal is yellow and another train passes the controller will set the signal back to red.



MTT has updated the N and HO scale 3D printed caboose lanterns to include an option for light to come out three sides – one green and two red. They are intended to be used with the MTT caboose board that puts out 3V. For more information visit [modeltraintechnology.com](http://modeltraintechnology.com).



New hard cover publications from **Morning Sun Books** include *Canadian Pacific Power: Switchers*. This first volume features the entire fleet of CP switchers from the 44-ton diesel-hydraulics built by CLC to two EMD

SW1500s. Also new from Morning Sun is volume 4 of *Penn Central in the Conrail Era*. This volume documents the former Penn Central portion of Conrail with a focus on the former PC



locomotives, equipment, and structures in use during the early 1990s. For additional information contact a dealer or visit [www.morningsunbooks.com](http://www.morningsunbooks.com).

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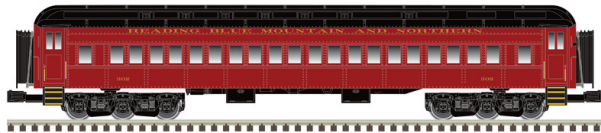


**Woodland Scenics** has announced Miss Molly's Diner, available soon in N, HO, and O scale. Part of the Built-&-Ready line of structures, it is equipped with lighting compatible with Woodland Scenics' Just Plug®

lighting system. The separate sign and menu board adds flexibility in installing the structure. For more information visit [woodlandscenics.com](http://woodlandscenics.com).

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## O SCALE PRODUCT NEWS



The first former M.T.H. O scale model coming from **Atlas** is a 70' heavyweight

coach. In addition to the Reading, Blue Mountain & Northern scheme shown here, road names will be Boston & Maine, US Army, Southern Railway (green), Southern Railway (Crescent Limited), Pittsburgh & West Virginia, Pennsylvania Railroad, Baltimore & Ohio, and Gulf Mobile & Ohio. The road names match those on a USRA 4-6-2 locomotive coming from M.T.H.

Features on this first run of 70' coaches include detailed ABS bodies, interior details, constant voltage overhead LED interior lighting, diaphragms, separate metal handrails, die-cast six-wheel trucks with metal wheelsets, and operating die-cast metal couplers. The cars are designed to operate on O-42 curves. Availability is scheduled for this fall.



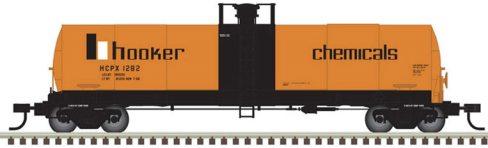
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Atlas O plans to deliver a new production run of Master series ACF 17,360 gallon tank cars during the 4th quarter of this year.

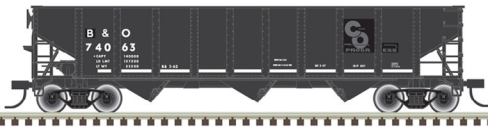


Decorating schemes will be GATX, HOKX, Kaiser Chemicals, Penwalt, PPGX, OXY Chemicals, and Hooker Chemicals. The O

scale ready-to-model will feature 100-ton roller-bearing trucks with rotating bearing caps.



An O scale 70-ton triple-bay coal hopper is also scheduled for release during the last quarter of 2021.



Road names will be Cambria & Indiana, Baltimore & Ohio, Burlington, Richmond, Fredericksburg & Potomac;

Seaboard Coast Line, and Southern Railway. The O scale ready-to-run model will have either flat or arched ends as appropriate to the prototype railroad being modeled. All Atlas O models are available for either 3-rail or 2-rail operation with appropriate couplers and trucks. For additional information contact a dealer or visit [www.atlaso.com](http://www.atlaso.com).

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**M.T.H.** has scheduled a September 2021 release for a final production run of O scale 4-6-2 PS-4 and USRA heavy Pacific steam locomotives. Road names and decorating schemes

on the Premier Line locomotives will match the O scale coaches coming from Atlas this fall. The heavy Pacific shown here wears the livery of the Reading, Blue Mountain & Northern Railroad. Contact an M.T.H. dealer for additional information.

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## WARTIME COMPOSITE CARS



R. Bale

During World War II the production of ships, tanks and other military needs created severe shortages of critical materials. To deal with the limited availability of steel, the AAR approved an emergency war-time design of gondolas and hopper cars that utilized heavy wood planking for the car sides, which were supported by external steel bracing. The intent was to replace the wood components with steel sheathing after the war, however, many of the composite wood and steel cars continued in service into the 1960s.

## HO SCALE PRODUCT NEWS



**Accurail** has released several new HO scale kits including one for a composite hopper with wood sides. The model is based on a car built for Chesapeake & Ohio during World War II. Accurail is offering the kit individually and in a three-car set with different road numbers.



This Lehigh Valley 40' PS-1 boxcar follows a prototype built by Pullman-Standard in July 1947.



This 36' Nashville, Chattanooga & St. Louis wood boxcar built in 1918 is based on a Fowler design.



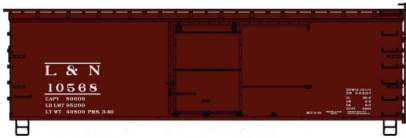
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ACF built the prototype of this Denver & Rio Grande Western 2970 cu. ft. Center Flow covered hopper in July 1974. Accurail's HO scale kit displays D&RGW's Action Road slogan.

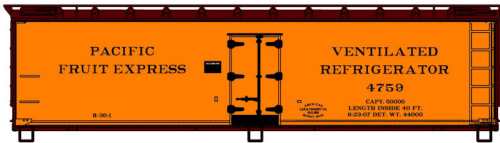


This 36' double sheathed wood boxcar went into service on the Louisville & Nashville in November 1913.



Accurail's HO scale kit for this 40' Soo Line steel boxcar with riveted sides follows a 1951 prototype. Completing

Accurail's list of new HO scale kits is a 40' Pacific Fruit Express class R-30-1 wood refrigerator car built by ACF.



All Accurail HO car kits including Accumate couplers and appropriate trucks with Delrin wheel sets. For additional

information contact a dealer or visit [www.accurail.com](http://www.accurail.com).



**American Limited Division of San Juan Model Co.**, has completed the second release of a prototypically accurate

welded General American Tank Car. Era specific details on the HO scale ready-to-run model include high walkways with body mounted handrails on models depicting as-delivered prototypes. Rebuilt versions of the GATX cars have walkways cut and safety handrails lowered to the bottom sides of car.



Depending on the era of the prototype being modeled, the American Limited tank cars come with either Bettendorf solid-bearing or 70-ton roller-bearing trucks.



Santa Fe cars are available in six unique paint schemes that indicate the appropriate commodity carried by the car.

Additional road names in both as-delivered and post-merger era schemes are Northern Pacific, and Spokane, Portland & Seattle. Each scheme is available in multiple road numbers. For additional information contact a dealer or visit [www.americanlimitedmodels.com](http://www.americanlimitedmodels.com).

---



R. Bale

## IDENTIFYING EMD'S F UNITS

Spotting features of the F3, built from 1946 to January 1949, are three evenly spaced portholes on the car body side and the chicken wire grilles covering the air intakes along the top of the body. The

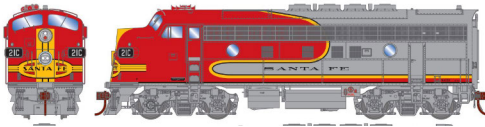
F7, which began production in February 1949 and continued until the end of 1953, can be identified by the four square car body filters between two portholes and the Farr stainless steel intake grille that has replaced the chicken wire at the top of the sides. Some late F3's took on the look of the F7s. The F9 is similar to the F7 with the addition of a fifth square body filter in front of the first porthole.



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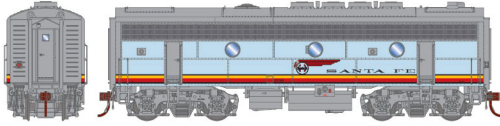
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**Athearn** has scheduled six road names, including Santa Fe, for the next release of its Genesis series

F units. F3A, F3B and F3A/B sets will be available in Santa Fe's classic Warbonnet scheme.



The Santa Fe units will represent F3 diesels in modernized 1959+ appearance with

stainless steel sides, dual headlights, lifting lugs, back up lights, nose grab irons, and either dynamic brake vents or 36" fans depending on the prototype number being modeled.



Bessemer & Lake Erie F7A units in freight livery will have a Nathan M3 horn, a whip antenna, cab

vent, and nose grab irons. B&LE F7B units will come with a Leslie A-125 horn.



Genesis F7A units decorated for Western Maryland will have a freight pilot, a nose

mounted MU door, and dual 5-chime horns. Both A and B units will have Farr grilles along the top of the car body.



Genesis F7A and F7B models decorated for Erie Lackawanna will include spark arrestors

for modelers to install if desired.



Missouri Pacific models will be Jenks Blue repaints with T&P

reporting marks. MP details include dual headlights, sunshades, and nose mounted MU fixtures.



Norfolk and Western F7s are ex-Wabash units. They will be available in three different decorating

schemes with unique lettering and number art per road number.

Features on all the Genesis F units in this release include cab interiors, wire grab irons, uncoupling levers, flexible rubber trainline and MU hoses, windshield wipers, lift rings, and Blomberg-B trucks. The models will be available for DCC operation with an onboard SoundTraxx Tsunami2 sound decoder. DC models will feature QuickPlug technology with a 21-pin NEM connector for installation of an aftermarket DCC decoder.

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R. Bale

## THE TANKTRAIN

The GATX TankTrain made its debut in the 1970s. The TankTrain concept solved the problem of long load/unload times for unit train shipments of liquid commodities. A standard unit train of tank cars can take significant time to load or unload, with the need for workers to attach the necessary hoses and other fittings to each individual car, coupled with the necessary time to load or unload the commodity from each car. TankTrain cars are interconnected with a large-diameter, flexible hose between each car, which allows the commodity to be siphoned off at a single point at the end of a set of cars while being “pushed” at the opposite end with inert nitrogen gas. Using this method, TankTrains can be loaded or unloaded at a rate of approximately 3,000 gallons per minute, allowing a train of 90 cars to be loaded or unloaded in under five hours. One of the most successful applications of the TankTrain concept was Southern Pacific’s crude oil operation from Bakersfield, California, to a Shell Refinery in Carson, California.





Athearn has scheduled the release of a complete assortment of HO scale Tank Train cars for April

2022. The run will include 486xxx series cars from the 1977 era with the original two-color bold logo. Cars in the 282xxx series will display the small logo introduced in 1986. Cars representing the 2006+ period will be available without a TankTrain logo.



A Genesis series ICC caboose will be included in Athearn's April 2022 production schedule. Details on the HO

scale cabooses include flush window glazing, etched-metal coupler platforms, formed wire grab irons and coupler lift bars, trainline and brake hoses, and Bettendorf-style solid-bearing caboose trucks with 33" machined metal wheels.



The ICC cabooses will be available with DCC and lights, and with DCC, lights and sound. Road names in this

release include Norfolk & Western, Pittsburg & West Virginia, and Seaboard Air Line.



This 50' boxcar built by PC&F with 14' plug doors will be available decorated for SSW-Cotton Belt and Union Pacific.

In addition, two schemes, including a Primed for Grime version, will be available for Southern Pacific and Golden West Service. Genesis features include 70-ton roller-bearing trucks with machined metal wheels and rotating bearing caps.

New Athearn Ready-to-Roll models coming next April include this 2970 cu. ft. Center Flow twin-bay covered hopper.





Features on the HO scale model include detailed twin discharge outlets, photo-etched metal roof walk, wire grab irons and stirrup steps, and trucks with machined metal wheels. In addition to the ACF demo car shown, road names will be Grand Trunk Western, Missouri Pacific/T&P, Norfolk & Western, and Winchester & Western.



This 60' FMC high-cube boxcar with double 8' Youngstown sliding doors will be available from Athearn next April. Road names will be Conrail, CSX, Norfolk Southern, Golden West Service, Cotton Belt, and Union Pacific.



Athearn has included a group of ACF 40' ballast hopper cars in its April 2022 production schedule.

Road names will be Wisconsin Central, Alaska Railroad, Burlington Northern, Union Pacific, and Southern Railway. Unlettered cars painted black and boxcar red will be available decorated with data only. The fully assembled HO scale models will come with a removable load.



Intermodal equipment listed in Athearn's April 2022 release include this 48' Husky Stack well-car. The HO scale model will be available decorated for Trailer Train, BNSF Railway, Greenbrier Leasing, and Northwest Container.



The Husky-Stack cars will be sold separately and with a 48' container.



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Individual 48' containers decorated for

Conquest, CSX, Rail Bridge, Itel, BNSF, and XTRA, are included in Athearn's April 2022 release.



New Roundhouse models coming from Athearn next April include this 50' ACF boxcar. The HO scale model

will have 70-ton roller-bearing trucks with 33" machined metal wheels. Road names will be Chicago North Western, Santa Fe/Railbox, Ashley Drew & Northern, Ferrocarril del Pacifico, Florida East Coast, and Railbox. For additional information on Athearn and Roundhouse products contact a dealer or visit [www.athearn.com](http://www.athearn.com).

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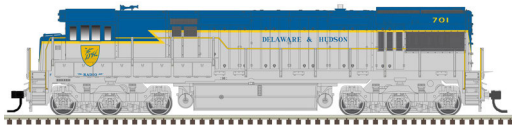


R. Bale

## GE U30C LOCOMOTIVE

In 1966 General Electric introduced the U30C (Universal model, 3000hp, three-axle trucks) locomotive as a replacement to the similar looking 2800hp U28C. Powered by GE's 7FDL 16 cylinder prime mover, the U30C was a direct effort to compete with EMD's SD40. The U30C proved to be very popular, selling 600 units during its 10 year production span. The primary spotting features of the U30C are the snub nose, smooth long hood, and three-axle trucks.





Atlas is preparing new tooling for an HO scale version of a GE U30C six-axle diesel locomotive.



Early reports indicate the all-new Master series model will feature several cab, headlight, and nose

light variations, etched-metal grilles, metal knuckle couplers, and newly-tooled Adirondack truck side frames. DC, DCC and DCC sound versions with an ESU LokSound decoder will be available.

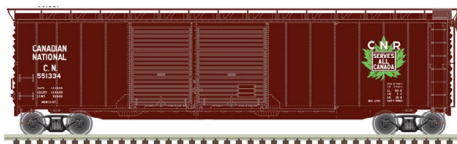


Production units are expected to be ready for release during the 4th quarter of 2021. Road

names will be Delaware & Hudson, Reading, Pennsylvania Railroad, Chessie System, Seaboard Coast Line, and Conrail.

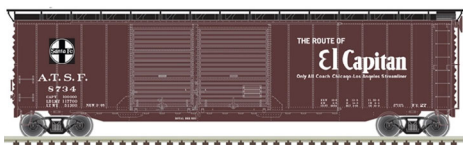


Atlas has also announced a 4th quarter release for a group of HO scale 50' postwar double door boxcars.



Road names will be Canadian National, Chesapeake & Ohio, Erie Lackawanna, Great Northern, Illinois Central

Gulf, Michigan Northern, Missouri-Kansas-Texas, and two Santa Fe schemes: El Capitan and Super Chief.



The HO scale ready-to-run models will have one 7' and one 8' Youngstown door covering the 15' opening.



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Additional features include separate ladders and grab irons, and Despatch, Dartnot, or Improved Dreadnaught ends. Roof types include Despatch, diagonal panel, and overhanging diagonal panel. The models will come with Bettendorf-type solid-bearing trucks with metal wheels.



Decorating schemes for new HO scale 40' containers coming from Atlas late this year

include China Shipping, Beacon, Cosco, Ocean Network Express, and United Arab Shipping.



Atlas has set a 2021 4th quarter release for another production run of its Pullman-Standard PS-2 twin bay covered hopper car.



New road names for this release of the HO scale Trainman series model will be Burlington Northern, Boston & Maine, Penn Central, SDCX, and Central of Georgia.



Popular road names being rerun with new numbers include Norfolk & Western, Northern Pacific, and Pennsylvania. For additional information contact a dealer or visit [www.atlasrr.com](http://www.atlasrr.com).

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R. Bale

## AMTRAK ALC-42 CHARGER

Amtrak's recently announced ALC-42 Charger is a modified version of the passenger carrier's new commuter diesel fleet. The designation ALC-42 – which stands for Amtrak Long-distance Charger, 4,200-horsepower – will serve as the new face of Amtrak. Spotting features include a redesigned nose and remodeled headlight. To support longer routes the ALC-42 will have greater fuel capacity than the current SC-44 and increased power-generating capacity for longer trains.



**Bachmann** plans to release an HO scale version of Amtrak's new ALC-42 Charger

locomotive No. 301 later this year. The model will be decorated in Amtrak's recently announced paint scheme honoring the company's 50th anniversary. This special-edition model will be available only by pre-order through a participating Bachmann retailer. Bachmann's HO scale ALC-42 will be available with a dual-mode NMRA-compliant decoder, WOWSound audio package from TCS, and Keep-Alive. A minimum track radius of 22" is recommended.



Bachmann has released a new production run of an HO scale 2-6-2 Prairie steam locomotive. The ready-to-run model features a plastic superstructure on a die-cast chassis. The DC-only model comes with a built-in smoke generating system and operating headlight.



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Road names include Baltimore & Ohio, Boston & Maine, Canadian National, Northern Pacific, Pennsylvania, Santa Fe, Union Pacific, and Chicago, Burlington & Quincy.



A Southern Railway version is available in the road's famous candy apple green livery.



Bachmann has released a group of 40' boxcars decorated in a variety of road names. Road names are CP Rail, B&O Sentinel scheme, Norfolk & Western, Nickel Plate Road, and two Denver & Rio Grande Western schemes.



The HO scale Silver Series models feature running boards, full height ladders, Dreadnaught ends and Youngstown doors.



The ready-to-run models come with knuckle couplers and Bettendorf-style Celcon trucks with blackened brass axles and machined metal wheels.



The same boxcar is available fitted with Bachmann's track cleaning system that includes a reusable dry cleaning pad that is dishwasher safe. Replacement pads are also available.

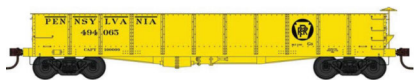
Road names for the track cleaning car are New Haven (State of Maine scheme), Great Northern, and Western Pacific. For

additional information contact a dealer or visit [www.bachmanntrains.com](http://www.bachmanntrains.com).

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**Bowser** has released a new production run of HO scale 40' Gs steel gondolas to its dealers.

The ready-to-run Executive Line model is based on a prototype built by the Pennsylvania Railroad between 1902 and 1913. Additional units built in 1913 brought the total under PRR's control to more than 30,000 cars.



Decorating schemes include Pennsylvania with a circle keystone, a shadow keystone, no keystone, and MOW yellow.



Additional road names include Grand Rapids & Indiana, Vandalia Line, and

Westmoreland Coal. For more information contact a dealer or visit [www.bowser-trains.com](http://www.bowser-trains.com).

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R. Bale

## NYC DREYFUS HUDSON

The Hudsons were a series of 4-6-4 steam locomotives favored by the New York Central Railroad. Named after the Hudson River, the NYC used the 4-6-4 locomotives to handle its crack passenger trains, including the 20th Century Limited and the Empire State Express. The strength of all the Hudsons was power at top speed. They were poor performers at low speed and required a booster engine on the trailing truck for starting. For this reason, they were generally assigned to routes with flat terrain. In response to the sensation created by the increased promotion of diesel powered locomotives in 1938, the New York Central dressed ten of its class J3a Hudsons with Art Deco streamlining designed by famed industrial stylist Henry Dreyfuss. The Dreyfus locomotives featured prominently on NYC advertising until the railroad accepted the inevitable and assigned diesels to its premier name trains.



A new production run of New York Central J3a

Dreyfuss 4-6-4 Hudson locomotives is scheduled for release by **Broadway Limited** late this month. BLI's HO scale composite model faithfully replicates the then-modern 1938 Dreyfuss design. In addition to the original 1938 paint scheme, BLI will also offer the slightly modified 1940 adaption as well as a brass version.



The HO scale model comes with Paragon2 Sound/DC/DCC system with authentic sounds for the steam driven J3a Hudson.



Construction of the model is a brass superstructure and tender body mounted on heavy die-cast chassis.



Broadway Limited is quoting a May release date for Santa Fe 2-8-2 Mikado steam locomotives equipped with Paragon4, the latest version of BLI's

proprietary on-board sound and operating system. Paragon4 includes all of the features of earlier versions plus a built-in capacitor pack for more reliable electrical pick-up.



The HO scale locomotives will have a die-cast boiler and chassis. The tender body will be plastic. Additional details

include rear marker lights, engineer and fireman figures, and traction tires.



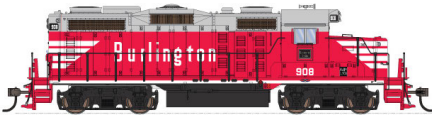
The workhorse Mikado will be available as a road engine and as branch line version with footboards on the pilot. The tender will also be fitted with footboards and a rear-facing

headlight. The road engine and switcher versions will each be available in four road numbers plus unlettered.



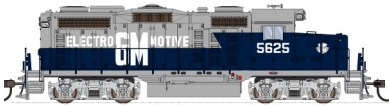
Also coming from Broadway Limited in May is an HO scale EMD GP20 diesel locomotive with the new Paragon4 sound and operating system.





Features include a dual-mode decoder with back-EMF for slow speed operation in DC

and DCC. The drive mechanism includes a 5-pole can motor with skew wound armature, all wheel electrical pickup and Kadee-compatible metal knuckle couplers.



Road names will be Santa Fe, Burlington Northern, Conrail, EMD Demo, New York Central, Southern

Pacific, Union Pacific, and Chicago, Burlington & Quincy. An unpainted model will also be available. For additional information contact a dealer or visit [www.broadway-limited.com](http://www.broadway-limited.com).

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**Fos Scale Models** has released a new HO scale background kit called Nesbitt Plastics. When fully assembled, the HO scale craftsman style kit is 6" wide by just 2.25" deep. For additional information visit [www.fosscalmodels.com](http://www.fosscalmodels.com).

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**InterMountain** is accepting reservations for a new production run of HO scale GE ES44AC locomotives.



Road names will be CSX, ArcelorMittal, BNSF, Citirail, Florida East Coast, Canadian National, Canadian Pacific, and Union Pacific.



The HO scale models will be available factory equipped with an ESU LokSound Select DCC decoder. Non-sound DCC units will come with an ESU LokPilot

decoder. DC only units must be reserved through an authorized InterMountain dealer. Some lighting functions may not operate correctly on DC-only locomotives.



several new Canadian National paint schemes.

InterMountain is also booking reservations for a new release of Tier 4 locomotives that include



The HO scale ready-to-run models will be available decorated in the Canadian National 100th Anniversary and CN Veterans schemes.



Additional paint options include CN Heritage

schemes for BC Rail, Illinois Central, Wisconsin Central, and Elgin, Joliet & Eastern. A Kansas City Southern version will be available in eight road numbers.



InterMountain has several Canadian decorating schemes available for an AAR 40' steel boxcar modified with eight-rung ladders and 4-4 Improved Dreadnaught ends.



Canadian Pacific cars are available with stacked block lettering, with the Spans the World slogan, and in script lettering both with and without a gold grain service logo.



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A CP Pac Man scheme is included in the mix.



Canadian National cars are available with wet noodle lettering and the road's classic green Maple Leaf heralds with both straight and tilted Serves All Canada slogan.



Each scheme is available in six road numbers.



The HO scale ready-to-run models come with Bettendorf-type solid-bearing trucks with metal wheels. For additional information contact

a dealer or visit [www.intermountain-railway.com](http://www.intermountain-railway.com).

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The newest release from **Kadee** is an HO scale model of an 11,000 gallon tank car decorated for SILX – Southern Indiana Liquefied Gas Co.

The model closely follows a prototype built in 1948 by ACF. Features of the ready-to-run model include detailed grab irons, ladders, stirrups, and handrails; a see-through platform, and a brake wheel with proper curved contour. The model comes with Kadee self-centering equalized trucks and Kadee metal knuckle couplers. For additional information contact a dealer or visit [www.kadee.com](http://www.kadee.com).

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**Lonestar Models** is selling a kit for a 1:87 scale Canadian pool grain trailer. The kit includes a painted but unlettered trailer body. The model can be assembled with an open body or with an enclosed tarp.

Decals are included with nine numbers and lettering for both Alberta and Ontario Wheat Pools.



For additional information contact a dealer or visit [www.intermountain-railway.com](http://www.intermountain-railway.com).



**Motown Models** has announced they will be producing the GP9R in HO scale. Developed by Grand

Trunk Western, 36 GP9Rs were rebuilt from older GP9s between 1989 and 1993. The rebuild included a solid-state electrical system, updated wheel slip and AC generator system, new air brake system, structural updates, custom cab and nose, 645 power assembly components, and larger fuel tanks and air reservoirs. Of the 36 GP9Rs, 34 were originally painted in GTW with the final two painted in CN wet noodle. One GTW locomotive (4633) was repainted into an Operation Lifesaver paint scheme that it wore until being repainted into the CN.CA website scheme in 2008. At least 11 different short lines and leasing companies have owned GP9Rs, with CN still having about 10 of them still on the roster.



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Motown will be using the Athearn GP9 chassis with 3D printed resin parts, photo-etch brass and bronze, brass handrails, full cab interior with lighting, pre-installed windshield wipers, cab sunshades, and all-weather windows where applicable. The models will be equipped with either ESU LokSound 5 with dual sugar cube speakers or LokPilot 5 and will have an ESU PowerPack installed. Headlights, numberboards, cab interior light, and ground lights will feature Motown Models Nano LEDs. Details will be road number specific. For more information visit [www.motownmodels.com/gp9r](http://www.motownmodels.com/gp9r).

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**Motrak Models** has introduced a kit for the Wolfeboro Freight House, a craftsman style kit based on a 19th century structure in New Hampshire. The main components including

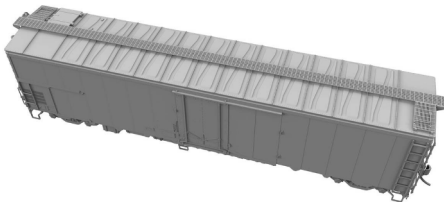
walls, doors, and roof of the HO scale kit are laser-cut. Details include laser-cut diamond shingles, Tichy windows, and numerous cast resin details. The assembled model has a footprint of 13.5" by 4.5". For additional visit

[www.motrakmodelsusa.com](http://www.motrakmodelsusa.com).

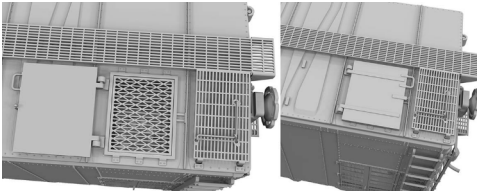
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**Rapido** is preparing tooling for HO scale versions of Santa Fe class RR-56/60/61 MTC (Mechanical Temperature Control) steel refrigerator cars.

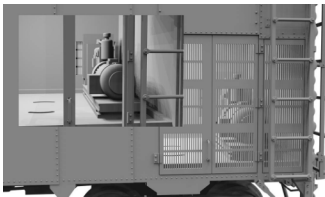


Preliminary computer renderings indicate this will be a highly accurate replica of the prototype with fine detail throughout the model.

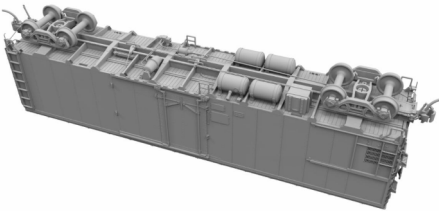


Special details include a positionable roof hatch above the generator compartment, separate door posts, door latches and coupler uncoupling

levers, see-through side grilles, a fully detailed underframe including piping and appliances, a Trane diesel generator, and detailed cushion draft gear with Kadee #158 whisker couplers.



Ten decorating schemes announced for the initial release include class RR56, RR60, and RR61 reefers with 9' circle/cross heralds and Santa Fe all the way slogans.



Class RR56 reefers with a 3' circle/cross herald will be available with promotional slogans for the Chief, Super Chief, San Francisco Chief, Texas Chief, and El Capitan.



Class RR60 and RR61 reefers with the smaller circle/cross herald will be available with the San Francisco Chief slogan. Contrasting the orange sides on all versions is the MTC icicle logo on a dark blue plug-door.



Decorated cars will have four individual car numbers per paint scheme. These will be available as a four pack that dealers can split for individual sale.



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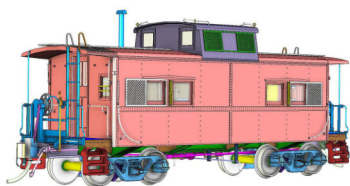
An optional sound unit, including speakers and a sound board, will be available as a separate purchase.



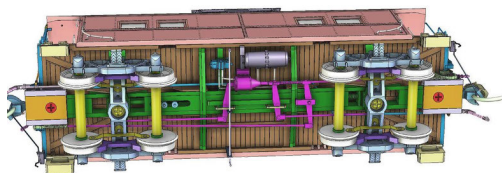
R. Bale

## NORTHEASTERN CABOOSE

The familiar Northeastern caboose was launched in the early 1920s when the Reading Company built 285 all-steel versions of a USRA wood-sheathed design. Early production had conventional underframes with subsequent production being fitted with Duryea cushion underframes. The success of the Reading cabooses was soon copied by other Northeast-based railroads. With production spread between several locations, variations from the original Reading design were inevitable. Although the basic configuration prevailed, different groups of cars were equipped with different trucks, running boards, steps, grab irons and end wall windows arrangements. As the need for cabooses waned, many of the sturdily built cars were sold second-hand to other railroads, museums, and private collectors.



Rapido has announced plans to produce a prototypically accurate model of a Northeastern-style steel caboose.



Using original blueprints and field measurements, Rapido will offer the HO scale ready-to-run model in several authentic

variations representing the prototype from its as-built to its end-of-service configuration.





Road names on the initial release will be Lehigh & New England, Chessie System, Conrail, and two schemes each for Central of New Jersey, Lehigh Valley, Reading, and Western Maryland.



Variations in the Rapido HO scale model will include Andrews, Birdsboro, or Taylor trucks, all with machined metal wheelsets; two different cupola roofs, diamond-tread and Alan Wood Superior running boards, two and three-tread steps, two different steel sides, and three different ends walls.



Additional details include smoke jack types, window blanks, etched window frames and screens, tool boxes variations, interior lights, Kadee #158 metal couplers and, of course, a fully detailed underbody. Availability is TBA.



Rapido is selling cast resin coal loads for its HO scale GLa hopper cars. Although the cast resin load is sized for Rapido's GLa, it can be adapted to other coal hoppers.



The loads are available in 2-packs. Each load measures 4.07" x 1.23". For additional information contact a dealer or visit [www.rapidotrains.com](http://www.rapidotrains.com).



**ScaleTrains.com** has announced a new run of the Rivet Counter HO scale GE Dash 9 model, with roadnames including Union Pacific, Santa Fe Warbonnet, BNSF/ex-Santa Fe Warbonnet patch, Norfolk Southern in both DASH 9-40C Horsehead and Dash 9-40W as built, and Undecorated. The Union Pacific models represent ex-SP repaints with and without PTC. The Santa Fe locomotives feature an updated red paint color with Hi-Ad trucks.



Also announced was a new run of Rivet Counter GATC 4180 Airslide® covered hoppers. Roadnames and paint schemes in this release include American Maize, GACX/Blue, Champion Spark Plug, Church & Dwight, Clinton Corn, Brach's Candy, Staley, and Undecorated. For more information visit [scaletrains.com](http://scaletrains.com).

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New models from **Tangent** include a group of Pullman-Standard 4750 cu. ft. covered hoppers in eight decorating schemes, including this 1973-era Aurora Co-op Elevator car. The HO scale ACOX model features WABCOPAC truck-mounted brake beams.



This Grand Trunk Western car, in the original 1972 blue scheme, has Apex running boards and an eight-rung grab iron ladder on the ends. All 4750 models in this release have 100-ton Barber S-2 trucks with 36" machined metal wheels and prototype-specific rotating bearing caps.

Delivered to ICG in 1972, this version features the early 4750 body with an angled brake beam, eight-rung grab iron end



ladder, Morton running boards, Keystone Portloc outlet gates, and Timken roller-bearing axle caps.



This patched INTX car is an ex-CN/IC 4750 built in 1972 and re-stenciled in 2013 for the lease fleet of Interstate Commodities Corporation.



Tangent's HO scale version of an NAXH car features Apex running boards and six-sided Brencro rotating axle caps.

Additional road names in this

release include PTLX ConAgra, a bright red TP&W car with Hyatt roller-bearing caps, and a 1999 UNPX Procor repaint with Apex running boards, replacement style roof hatches, and Timken roller-bearing caps. For additional information visit [www.tangentscalemodels.com](http://www.tangentscalemodels.com).

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**Walthers** plans to release an all-new Mainline series SW7 diesel switcher next month. The HO scale model is based on Phase II prototypes built

from 1950 to 1951. Spotting features include a large front radiator grille, dual conical exhaust stacks, six louvered side doors, and small square center cab windows



Road names will be Atlantic Coast Line, Detroit & Toledo Shore Line, Illinois Central Gulf, New York Central, Union Pacific, and Chicago,



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Burlington & Quincy. The SW7 will be available for standard DC operation and with an ESU Sound and DCC decoder.



Also coming from Walthers next month is a 40' hi cube container. The HO scale model will be available for Ocean Network Express, and MOL-SEACO.



Road names for this Walthers Mainline series 60' high-cube Plate F boxcar will be BNSF, Canadian National, Canadian Pacific, Norfolk Southern, and two TBOX-TTX

schemes. The HO scale model has a prototypically correct roof with both X and diagonal panels, separately applied latch bars on the plug doors, and 100-ton roller-bearing trucks with 36" machined metal wheels.



New HO scale models coming from Walthers in May include this 37' 2980 cu. ft. twin-bay covered hopper. Road names will be Santa Fe, Chicago North Western, CSX,

GATX, Union Pacific, and Wisconsin Central.



This 40' ACF welded boxcar is available in the Walthers Mainline series of ready-to-run models. The HO scale model is based on a 10-panel car built by American Car & Foundry with 8' Youngstown sliding doors,

4/4 Improved Dreadnaught ends, a Stanray diagonal panel roof, and Apex see-through steel running boards. The HO scale model comes with appropriate trucks with 33" machined metal wheels. Road names are Chicago & Eastern Illinois, Erie Lackawanna, Maine Central, Pennsylvania Railroad, Union Pacific, Western Maryland, and Wabash.



Although similar, this 40' AAR 1944 boxcar with an interior height of 10'-6" has its own unique features. They include 4/4 Improved Dreadnaught ends, a Murphy panel roof, see-through Apex steel running boards, 6' Youngstown sliding doors, and Bettendorf-type trucks with 33" machined metal wheels. In addition to the famous Pacemaker scheme of the New York Central, the Walthers Mainline HO model will be available decorated for Santa Fe, Canadian National, Illinois Terminal, Kansas City Southern, Northern Pacific, and Spokane, Portland & Seattle.



Walthers has a new HO scale version of a 50' Pullman-Standard PS-2 CD 4427 cu. ft. covered hopper. In addition to Cargill, road names include Santa Fe, Chicago North Western, Chicago, Burlington & Quincy; Milwaukee Road, Northern Pacific, and Soo Line.



The Mainline series model comes with knuckle couplers and appropriate trucks with 36" machined metal wheels. Additional features include see-through running boards, a 4-3-4 exterior rib pattern, and three detailed outlet gates.



Also new from Walthers is a 57' mechanical refrigerator car. The HO scale model is based on a prototype built for Pacific Fruit Express by Pacific Car & Foundry in the late 1960s. Road names available on Walthers ready-to-run model are ARMN, Burlington Northern, Milwaukee Road, Santa Fe, SPFE-Pacific Fruit Express, and Union Pacific-Fruit Express.



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Features on the Mainline series model include 9' Youngstown plug doors with separate latch bars, a Stanray ribbed peak roof, and either a Keystone or Hydra-Cushion underframe as appropriate to the road being modeled. The car comes with 70-ton roller-bearing trucks with 33" machined metal wheels.



Walthers is selling a Proto series 89' Thrall tri-level enclosed auto carrier. The racks display their owners' identification with many of them mounted on flat cars leased from TTX with ETTX reporting marks. To minimize the height of the tall racks the trucks are fitted with 28" machined metal wheels. A minimum track radius of 24" is recommended for reliable operation.



Road names are BNSF, Chicago North Western, and CSX rack on an ETTX flat; Norfolk Southern rack on a TTX flat car, and Union Pacific on an SP flat car.

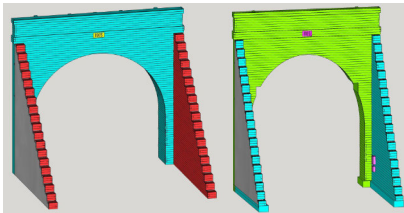


New structure kits in Walthers Auto Industry series include this Ford Central Office Building. The HO scale Cornerstone kit is based on a structure in Dearborn, Michigan that served as the central office for Ford Motor Company from the 1920s until the late 1990s. Walthers model could also serve as a hospital, school, city hall, courthouse, or other administrative structure. The assembled model measures 13.5" x 6.5" x 7.25" tall.

Another addition to Walthers Auto Industry series is a kit for a Tire Plant. The structure features brick curtain-style construction,



a pair of smokestacks, roof top water tank, a carbon black storage silo, an enclosed rail dock, and a truck dock. The assembled structure measures 13.187" x 6.687" x 12" tall. For additional information contact a dealer or visit [www.walthers.com](http://www.walthers.com).



**ZYX Creative** is releasing two new 3D printed double-track portals in HO scale. Available with or without wings, the portals are based on an SP design and feature raised board form

surface detail. One design models the portal as originally designed, and the other is a modernized design with utility boxes, a slightly higher opening, and double-stack notches. Build dates can be customized for the customer. For more information visit [www.zyxcreative.com/tunnels](http://www.zyxcreative.com/tunnels).

## N SCALE PRODUCT NEWS



**Athearn** has scheduled the release of N scale TankTrain cars for April 2022. The run will include cars from the

1977 era with the original two-color logo, and cars from 2005 without a logo. Features of the N scale models include detailed walkways and manways, correct transfer plumbing, full underbody plumbing and rigging, and soft vinyl transfer hoses that bend as the car negotiates curves. See the HO report for details on the prototype TankTrain.

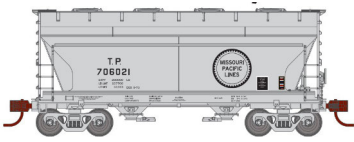
Also coming from Athearn next April is this 2970 cu. ft. Center Flow twin-bay covered hopper. Features on the N scale model



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include photo-etched metal roof walk, and wire grab irons. In addition to the Missouri Pacific/T&P car shown, road names will be ACF demo car, Grand Trunk Western, Norfolk & Western, and Winchester & Western.

Norfolk & Western, and Winchester & Western.



N scale intermodal equipment in Athearn's April

2022 release includes this 48' Husky Stack well-car. The model will be available decorated for Trailer Train, BNSF Railway, Greenbrier Leasing, and Northwest Container.



The Husky-Stack cars will be available separately and

with a 48' container. For additional information contact a dealer or visit [www.athearn.com](http://www.athearn.com).



R. Bale

## GE DASH8-40B LOCOMOTIVE

The Dash 8-40B (AKA B40-8) is a highly successful four-axle road switcher diesel electric locomotive produced by General Electric from mid-1988 to early 1993. Rated at 4,000hp, the 8-40B was powered by GE's 7FDL prime mover. Spotting features include gull wing radiators, a stubby nose, and a relatively small windshield. A wide cab version (8-40BW) has the nose dropped at the front corners for crew visibility.







**Atlas** has scheduled another production run of its popular N scale GE Dash 8-40B/BW diesel

locomotives. Introduced in the late 1980's by GE, the four-axle Dash 8-40B diesel units are readily identified by the gull wing cooling grilles at the rear of the locomotive.

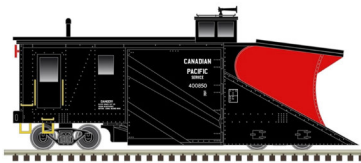


Atlas' N scale version features directional lighting, operating ditch lights, and blackened metal wheels.



Scheduled for release during the 4th quarter of 2021, road names on this run will be Santa Fe

(Warbonnet), BNSF (Late Swoosh), Amtrak (Pepsi scheme), Amtrak (Phase V scheme), and RJ Corman. The N scale locomotive will be available as an Atlas Silver series DC model with a plug for an aftermarket decoder. Gold series models will have factory installed DCC and sound.



Also coming from Atlas during the 4th quarter of 2021 is a Russell snowplow. In addition to Canadian Pacific, the specially weighted N scale model will be available decorated for Delaware &

Lackawanna, Green Mountain, Milwaukee Road, Ontario Northland, Pan Am, Pennsylvania Railroad, Union Pacific, and New York, Susquehanna & Western.



New N scale intermodal equipment coming from Atlas late

this year includes a group of 40' standard height containers with corrugated sides and end walls.



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Decorating schemes will be BMOU-Beacon,

CCLU-China Shipping, CSNU-Cosco, TLLU-Ocean Network Express, and UACU-United Arab Shipping.



Atlas has set a 2021 4th quarter release for another production run of its Pullman-Standard PS-2 twin bay covered hopper car.



New road names for this release of the N scale Trainman series model will be Burlington Northern, Boston & Maine (Guilford), Penn Central, Central of Georgia, and SDCX.



Previously issued roads including Norfolk & Western, Northern Pacific, and Pennsylvania will be rerun with new numbers. For additional information contact a

dealer or visit [www.atlasrr.com](http://www.atlasrr.com).



**Bachmann** has released a new production run of N scale 2-6-2 Prairie steam locomotives. The ready-to-run DC model comes with an operating headlight.



Road names are Canadian National, Northern Pacific, Pennsylvania, Santa Fe, Union Pacific, and Chicago, Burlington & Quincy.



A Southern Railway version is available in the road's famous apple green livery.



Also new from Bachmann is a group of depressed-center flat cars. The N scale model features six-wheel trucks

with blackened, machined metal wheels. Road names are New York Central and Frisco Line.



The flat car is also available with a U.S. Army rocket launcher, and with an M551 Sheridan tank.



In addition to the desert camo scheme shown, the Sheridan tank/flat car combination is available in green camo and with a green tank on a black flat car. For additional information

contact a dealer or visit [www.bachmanntrains.com](http://www.bachmanntrains.com).

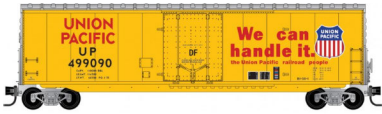


New **Micro-Trains** N scale models available now from authorized dealers include two versions of a 70' heavyweight baggage car especially equipped to



transport valuable racehorses. The horse cars include a Chesapeake & Ohio version in blue, yellow and gray; and one in Pullman green lettered in gold for the Southern Railway.

Also new from Micro-Trains is a 50' Union Pacific boxcar with 8' plug doors. The N scale model represents a prototype built



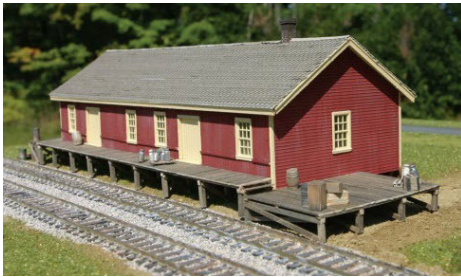
in 1957 that has since had its brake wheel and ladders lowered and running board removed.



This 39' single dome tank car from Micro-Trains is one of a small group of cars decorated for the St. Lawrence Starch Company, of Port Credit, Ontario. Built in

the late 1940s, the prototypes were used to transport corn syrup. For additional information about Micro-Trains products contact a dealer.

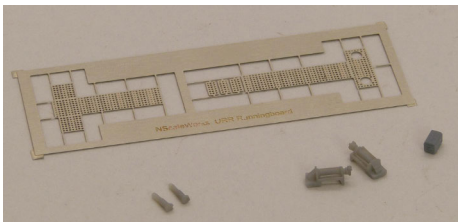
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**Motrak Models** has introduced the Wolfeboro Freight House, an N scale craftsman style kit based on a 19th Century structure in New Hampshire. The main components including walls, doors, and roof of the N scale

kit are laser-cut. Details include laser-cut diamond shingles, Tichy windows, and numerous cast resin details. The assembled model has a footprint of 5.75" x 2.5". For additional information visit [www.motrakmodelsusa.com](http://www.motrakmodelsusa.com).

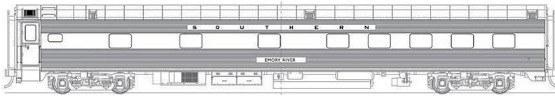
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**NScaleWorks** has released a detail kit for the Atlas N scale MP15DC. Containing photo-etched nickel-silver walkways, cab roof sand inlets, hood sand inlets, and a cooler box, it details the

model into one owned by the Union Railroad. For more information visit [shop.nscaleworks.com](http://shop.nscaleworks.com).

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RailSmith is taking reservations for lightweight Southern Railway sleepers. Two N scale cars will be available – Emory River and Shenandoah River.

The prototypes were part of the 29 ten roomette/six

bedroom sleepers the Southern assigned to their name trains including the famous Southern Crescent.



Additionally, RailSmith has announced the Illinois Central sleepers Calvert and Clarksdale for the City of Miami passenger train. For additional information visit [lowellsmith.net](http://lowellsmith.net).

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Trainworx plans to release another production run of its N scale 4427 cu. ft. Pullman Standard PS2CD triple-bay covered hopper during the 2nd quarter of 2022.

The ready-to-run model will have metal grab irons, etched metal roof walks, road specific trough



hatches, body-mounted knuckle couplers, and 100-ton trucks with Fox Valley metal wheels.

Six road numbers will be available for CSX, Chessie System, Northern Pacific, Rock Island, Cargill, and two MKT schemes. Reservations can be made through a dealer



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or by contacting InterMountain Railway at [www.intermountain-railway.com](http://www.intermountain-railway.com).

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New N scale structure kits from **Walthers Cornerstone** include Lancaster Farm House, a classic two-story wood frame house. Features include spindle railing porch trim, an exterior cellar entry door, and separate doors and windows with clear window glazing. The assembled model has a footprint of

2.5" x 3.25". For additional information contact a dealer or visit [www.walthers.com](http://www.walthers.com).

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## NEW DECALS, SIGNS AND FINISHING PRODUCTS



New N scale lettering sets from **Great Decals** include The Virginian Railway's EL-C (E-33) rectifier electric locomotives. Each set includes both yellow

and white lettering and will decorate one locomotive. The decals are suitable for N scale models of the EL-C locomotive including the 3D printed shell available on Shapeways.

Great Decals has also released N scale lettering sets for Norfolk & Western class H-9 and H L 2-bay hopper cars. The set includes N&W's 24" herald, road name, road numbers, car classes, repack stencils, dimensional and end data specific to these cars. Alternate LT WT lines are also provided.

Great Decals has a lettering set for Southern Railway Greenville 100-ton black aggregate hoppers, including re-stenciling for NS and VULX. As these are modern cars, the sets include consolidated lube plates, which require the black color and orange reflector stripes.

Great Decals has released three sets of decals for the Richmond, Fredericksburg, and Potomac (RF&P) railroad. Set #160 is suitable for both modern and repaint 50' and 60' outside braced boxcars. They include the road name, RF&P spelled out in modern font and billboard letter herald, road numbers, "Cushion Service" and "Cushioned Load" lettering, and dimensional and capacity data specific to the single and double door cars. Set #162 is designed to decal diesel era wide-vision and center cupola steel cabooses in the blue and red paint schemes. Included are the road name, road numbers, RF&P logos, and weight data specific to the cars. Set #163 covers an RF&P bulkhead flatcar and a TTBX/BBTX leased autorack. The set includes road names, RF&P heralds, Virginia map, road numbers, bulkhead stripes and capacity data. As these are modern cars, the sets include consolidated lube plates, wheel inspection dots, Kartrak-ACI Labels, and caution end stripes as appropriate.

Also new from Great Decals are HO scale lettering sets for Carolina & Northwestern diesel Alco locomotives and cabooses. The sets provide accurate lettering for RS-2, 1-4, RS-3, 5-10 and RS-11 locomotives; and X11-X16 wood and steel bay window X25 to X34 steel bay window cabooses. This set includes Carolina & Northwestern, Danville & Western, and Blue Ridge road names and round heralds, and appropriate road numbers. For additional information visit [greatdecals.com](http://greatdecals.com).

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New HO scale decals available from **National Scale Car** include Detroit & Mackinac 2700 series 1937 AAR boxcar, and



<b>DETROIT &amp; MACKINAC</b> <b>2700</b> <b>2702</b>	CAPY: 100000 LOAD LIMIT: 235 99 LIGHT WEIGHT: 45 500	<b>D &amp; M</b> <b>2700</b> <b>2702</b>	NEW 5-40 <b>2702</b>	121788 47300 123400 45500 132100 46600 45493 D & M <b>2700</b> <b>2702</b> D & M <b>2700</b> <b>2702</b> 6.03	A B JF 9-42 TC 18-43 ET 8-44 TC 30-45 TC 9-47 4-48 10-49 12-50 7-51 9-52 6-53
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Union Pacific B-50-38/39 boxcars. The UP set includes both white and yellow lettering and will decorate up to three cars.

<b>SPS</b> SPS&S SPS&S 0123456789	0123456789 SPS&S 0123456789	0123456789 SPS&S 0123456789
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Also new is an HO scale lettering set for Spokane, Portland & Seattle 23000

series wood chip gondolas. For additional information visit [www.nationalscalecar.com](http://www.nationalscalecar.com).



**Switchline Decals** has N and HO scale water slide decals for Kansas City Southern's Safety Starts Here scheme as applied to ES44AC prototype locomotive number 4859.

4859 4859	KCS SAFETY STARTS HERE	Amazon Prime prime prime prime prime
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Switchline also has N, HO, S and O scale decals for Amazon Prime containers. For additional information visit [switchlinedecals.com](http://switchlinedecals.com).

## DISCLAIMER .....

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## BRIEFLY NOTED AT PRESS TIME ...

**JTC Models** has added a 53' high-cube corrugated container decorated for V&O (Virginian & Ohio) to its Visionary Series of N scale containers. Details at [www.jtcmodeltrains.com](http://www.jtcmodeltrains.com).

**KatoUSA** is taking advanced orders through April 28 for N scale MP36PH sets custom painted for Chicago Metra "State of Illinois". Delivery of the boxed, limited edition models will be July 2021. Contact an authorized Kato dealer for full details.

**Monster Models** has released sheets of 3D etched paving material for Cracked Concrete, Herringbone, and Cobblestone streets in N, HO and S scale. Info at [www.larkspurlaserart.com](http://www.larkspurlaserart.com).

**Morning Sun Books** has reissued Chicago & North Western in Color, Volume 1. The reprint features both steam and early diesel equipment from 1941 to 1953. Info at [www.morningsunbooks.com](http://www.morningsunbooks.com).

**Rail Smith** has a limited quantity of N scale Alamo diners and Tioga Rapids sleepers for the Texas Special as jointly operated by the M-K-T and the Frisco Railroads. Details at [lowellsmith.net](http://lowellsmith.net). ■

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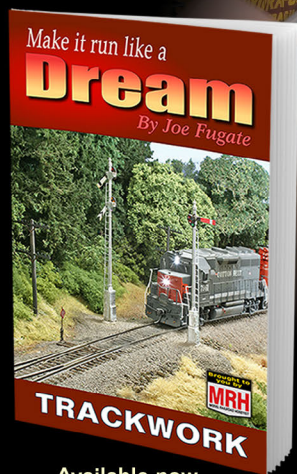


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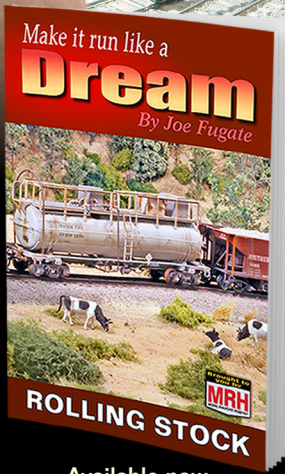
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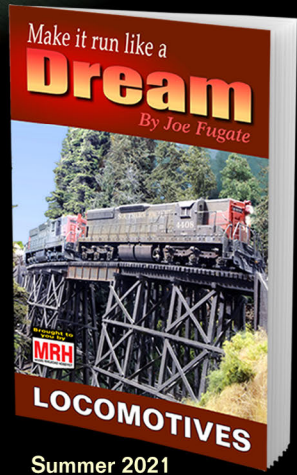
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***Due to COVID-19 restrictions, please check with any organization hosting an in-person event for the latest status of the event.***

## Ongoing 2021

**ONLINE, Zoom**, dates vary, see website. Operation Special Interest Group Meetups – limited attendance available. For more information visit [www.opsig.org/Virtual](http://www.opsig.org/Virtual) Past meets are available online at [www.opsig.org/Virtual/Past](http://www.opsig.org/Virtual/Past).

**ONLINE, Zoom & YouTube**, Wednesday & Saturday, see Facebook page. “New Tracks” Meetup, hosted by Jim Kellow, MMR. See [www.facebook.com/newtracksmodeling](http://www.facebook.com/newtracksmodeling) for more information.

**ONLINE, Facebook & YouTube**, dates vary, see Facebook page. “NMRax” organized by Gordy Robinson, Martyn Jenkins, Gert Muller, Jordan Kramer. See [www.facebook.com/groups/nmragroup](http://www.facebook.com/groups/nmragroup) for announcements.

**ONLINE, YouTube**, every other Saturday. 4th Division, Pacific Northwest Region, NMRA hosts online layout tours and clinics. Archive available at [www.youtube.com/c/4DPNRMovies](http://www.youtube.com/c/4DPNRMovies).

**ONLINE, Zoom**, Second Tuesdays, 8pm EST. “Off the Beaten Track” featuring Narrow Gauge layouts, clinics and manufacturers. For more information visit [groups.io/g/NNG](http://groups.io/g/NNG).



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## April-May 2021

**ONLINE, Facebook & YouTube**, April 10-11. NERx – NMRA Northeastern Region Virtual Convention. For more information visit [www.nerx.org](http://www.nerx.org).

**ONLINE, Facebook & YouTube**, April 22. Virtual York O Scale Week Manufacturer Event, by TrainWorld. For more information visit [www.facebook.com/events/478645776626377](http://www.facebook.com/events/478645776626377).

**ONLINE, Virtual Event**, April 17th. World's Greatest Hobby Online, with virtual booths and exhibits, Information and registration at [www.wgh.events](http://www.wgh.events).

**ONLINE, Zoom**, May 21, 28, June 4, 11, Virtual Railway Modellers Meet of BC, sponsored by 7th Division, PNR, NMRA. For more information visit [railwaymodellermmeetofbc.ca](http://railwaymodellermmeetofbc.ca).

**COLORADO, COLORADO SPRINGS**, May 22, TECO Model Train Outdoor Swap Meet. Chapel Hills Mall, 1710 Briargate Blvd. For more information visit [www.tecoshow.org](http://www.tecoshow.org).

**INDIANA, FRANKLIN**, May 15, Franklin Train Show, presented by the Central Indiana Division of the NMRA. Johnson County Fairgrounds. For more information visit [www.cidnmra.org/services](http://www.cidnmra.org/services).

**PENNSYLVANIA, KUTZTOWN**, May 15. Renningers Model Train Meet, 740 Noble Street. For more information see [renningers.net/events/model-train-meet](http://renningers.net/events/model-train-meet).

**TENNESSEE, NASHVILLE**, May 30 – June 5, 2021. 36th National Garden Railway Convention, Gaylord Opryland Resort & Convention Center, 2800 Opryland Drive. For more information visit [ngrc2021.com](http://ngrc2021.com).

**NEW ZEALAND, DUNEDIN**, May 8-9 2021, Dunedin Model Train Show. Taieri Bowling Club, 12 Wickliffe Street, Mosgiel. For more information email [dunedinmodeltrainshow@gmail.com](mailto:dunedinmodeltrainshow@gmail.com).

## Future 2021-2022 by location

**ONLINE, Zoom**, May 21, 28, June 4, 11, 2021, Virtual Railway Modellers Meet of BC, sponsored by 7th Division, PNR, NMRA. For more information visit [railwaymodellermeeetofbc.ca](http://railwaymodellermeeetofbc.ca).

**CALIFORNIA, IRVINE**, September 8-11, Pacific Southwest Region/NMRA Convention, "Orange Blossom Special." Hilton Irvine/Orange County Airport Hotel, 18800 MacArthur Blvd. Visit [www.psrconvention.org/OrangeBlossomSpecial2021](http://www.psrconvention.org/OrangeBlossomSpecial2021) for more information.

**CALIFORNIA, SANTA CLARA, CONVERTED TO VIRTUAL** – July 4-11, 2021, Rails By the Bay, 2021 NMRA National Convention and National Train Show. Santa Clara Marriott Hotel. Efforts are underway to present the convention as a virtual convention online in. For more information visit [www.nmra2021.com](http://www.nmra2021.com).

**FLORIDA, MELBOURNE**, June 5, September 4, December 4, Original Melbourne Train and Toy Show, sponsored by Schultz Space Coast Trains, Azan Shrine Center, 1591 W Eau Gallie Blvd. For more information visit [schultzspacecoastrains.com](http://schultzspacecoastrains.com).

**FLORIDA, TALLAHASSEE**, June 26-27, 30th Annual Tallahassee Model Railroad Show and Sale, sponsored by Big Bend Model Railroad Association, 441 Paul Russell Rd. For more information visit [www.facebook.com/events/745873359647741](https://www.facebook.com/events/745873359647741).

**GEORGIA, CARTERSVILLE**, October 2-3, 2021 Piedmont Division Model Train Show, Clarence Brown Conference Center, 5450 GA-20. For more information visit [themodeltrainshow.com](http://themodeltrainshow.com).

**ILLINOIS, COLLINSVILLE (St. LOUIS)**, July 30-31, 2021. St. Louis Railroad Prototype Modeler's Meet. Gateway Convention Center, 1 Gateway Dr. For more information visit [www.icgdecals.com/stlrpm](http://www.icgdecals.com/stlrpm).

**KANSAS, HUTCHINSON**, June 5-6, 2021, Center of the Nation Model Railroad Expo, Pride of Kansas Building, Kansas State Fairgrounds. For more information visit [www.kansascentralmodelrailroaders.org/train-show.html](http://www.kansascentralmodelrailroaders.org/train-show.html).



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**MARYLAND, LINTHICUM HEIGHTS (BALTIMORE),** September 10-11, 2021, Mid-Atlantic Railroad Prototype Modelers Meet, Doubletree by Hilton – BWI, 890 Elkridge Landing Rd. For mor information visit [www.marpm.org](http://www.marpm.org).

**MARYLAND, HUNT VALLEY,** October 21-24, 2021, Mid-Eastern Region Convention – Mount Clare Junction Model Railroad, Delta Hunt Valley, 245 Shawan Road, [mtclarejct.com](http://mtclarejct.com).

**MISSOURI, St. LOUIS,** August 7-14, 2022, NMRA National Convention and National Train Show.

**NORTH CAROLINA, HICKORY,** September 1-4, 41st National Narrow-Gauge Convention, Hickory Metro Convention Center and Crowne Plaza Hotel. For more information visit [41nngc.com](http://41nngc.com).

**ONLINE, Zoom,** August 7th, 14th, 21st & 28th. Idaho Rails - Pacific Northwest Region, NMRA Reional Virtual Convention. For more information visit [sites.google.com/view/3rddivisionpacificnorthwestreg](https://sites.google.com/view/3rddivisionpacificnorthwestreg).

**OHIO, TOLEDO,** October 21-24, 2021. Black Swamp Junction – NCR 2021 Convention, hosted by the NMRA, open to all, featuring clincs, tours, layouts, op sessions, and door prizes. Radisson Hotel at the University of Toledo, 31100 Glendale, Ave. For more information visit [www.divisiononencr.com/2021](http://www.divisiononencr.com/2021).

**PENNSYLVANIA, KUTZTOWN,** July 17, August 28. Renningers Model Train Meet, 740 Noble Street. For more information see [renningers.net/events/model-train-meet](http://renningers.net/events/model-train-meet).

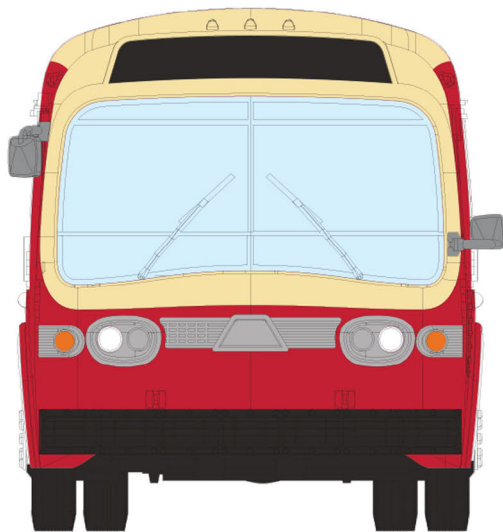
**TEXAS, STAFFORD (GREATER HOUSTON),** August 14, 2021, Greater Houston Train Show, Stafford Centre, 10505 Cash Rd. For more information visit [sanjacmodeltrains.org](http://sanjacmodeltrains.org).

**TENNESSEE, NASHVILLE,** June 15 – 19, 2022, 2022 National N Scale Convention. For more information visit [www.nationalscaleconvention.com](http://www.nationalscaleconvention.com). ■



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