



THE **O** **RESOURCE** **SCALE**

NEWS, REVIEWS, INFORMATION TO USE

Painting Railroad Cars Part 2
Indianapolis Fall O Scale Show
Indianapolis Model Contest
I Don't Wanna Grow Up
JMRI for DCC control
Making Rocks Part 2
All-Nation Line

Vol. 1 No. 2
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November-December

Vol 1 #2

Welcome to the online O Scale Resource magazine. The magazine is presented in an easy to use format. The blue bar above the magazine has commands for previewing all the pages, advancing the pages forward or back, searching to go to a specific page, enlarging pages, printing pages, enlarging the view to full screen, and downloading a copy to your computer.

Front Cover Photo

Norm Pullan in Maine sent in a photo of his model railroad based on local railroading in the North East. A pair of Gilford Rail System GP's roll along a rock ledge in typical north east scenery.

Rear Cover Photo by Dan Dawdy

Overlooking the engine facilities on Gary Engle's Great Northern layout. It looks like a storm is brewing, which is so typical of the northern plains states in summer.

Bill Of Lading

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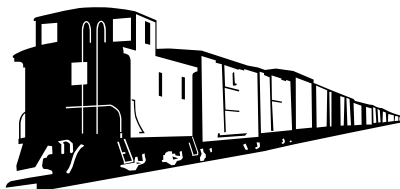
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EDITORIAL COMMENT



Dan and I would like to thank everyone for the good response to the first issue of The O Scale Resource. We received a lot of good comments, as well as, information for future issues. Some people wanted to be notified when new issues are released. We initially did not want to do that because we didn't want people to think we are mining them for data. This is why there is no sign up or log in required to view the magazine. We talked about this, and Dan has set up a voluntary sign up that we will only use to notify you when the next issue has been released. The sign up link will be posted on the table of contents page with each issue from now on, as well as on the home page of The O Scale Resource. If you sign up, you will get an email notifying you that the next issue has been released. We will not use or sell your email address. This is for notification purposes only.

In the September-October issue, we did an article on Joe Fisher passenger cars. We had a few people send us photos of Joe Fisher cars they had. I have posted the photos in the News & Reviews section of this issue. For articles this month, we have the second article about making rocks. Gary Engle came over to Dan's house, and I went to take some photos and notes. We put some rocks on Dan's layout using rock molds and plaster. Dan had put up a small rock prior to Gary's arrival, and Gary painted it for a demo. I photographed this step by step so you can see what the rock looks like as you paint it. We had a lot of fun doing this and I think you will like the article. I also went to visit with Terrell Colson, son of Bob Colson, who was an owner of the All-Nation Line. I wanted to do an article on the All-Nation F units, and thought Terrell could shed some light on that. Terrell is about my age, and the part of the F unit story I was looking for was before our time. We got to talking about his dad and All-Nation, and a whole new story started to develop. Terrell had a lot of fun digging information out for me, and if you are interested in some of the history of the hobby, you will like this article. Part two of the paint series is in this issue. We look at some hobby paints and techniques for painting models. In this article, we look at some comparisons of model paints, not as a critique, but to see what the finish looks like. In doing so, we have some information for selecting a paint that will give the desired end result. Dan has another technical article for people working with DCC control. In this issue, he will simplify some of the programming allowing you to get the performance you want out of your DCC equipped models. If you are using DCC, this will be of interest to you. Dan likes building structures, and talks a little about how he comes up with ideas and methods to get the look he wants in his "I Don't Wanna Grow Up" article. This is a "thinking out of the box" article that explores how Dan approaches detailing his structures. Lastly, we hear from Roy James in England. Roy sent us some photos and information about his layout, which is a life long dream of the display layouts many of us remember in the stores during the Christmas holiday season. With that season coming up, we thought you would like to see one person's recreation of that.

Thanks for coming, and enjoy the issue.

Glenn Guerra



NEWS AND REVIEWS

IN MEMORANDA

Ed Duddy passed away September 28, 2013 in Springfield, Missouri. Ed's health had been deteriorating for a while, and he was not able to attend shows for the last few years. The business he ran, House of Duddy, supplied many people with models only he produced. Ed was a big fan of the Pennsylvania Railroad electric locomotives, and produced kits of them, as well as, the related catenary parts for the electrification. One of Ed's biggest contributions to the hobby was the flex track that today is sold by Micro Engineering. He was well known around the hobby, and will be missed. Our condolences to his family.

Both Dan and I were able to attend the Indy O Scale show in September. We had a good time at the show. See the separate articles for photos of the show and the model contest. We had a computer set up to show people The O Scale Resource online. There were lots of good comments, and we appreciate that.



In the September-October issue, we looked at some Joe Fisher built passenger cars. Bill Wheeler sent us a photo of a car he has that was made by Joe Fisher.

The Stamford Model RR Club announces their Annual Train Show November 30 & December 7, 2013. Located in St. Johns Episcopal Church, corner of Grove and Main Streets, entrance on Grove Street. Doors will be open from 1 to 5 PM and 7 to 9 PM. This O scale layout is 145' x 51' featuring Northeastern trains, especially New Haven, with some Western RR's also. Adults \$5.00, Children \$4.00. Contact John Walther jwalther48@msn.com



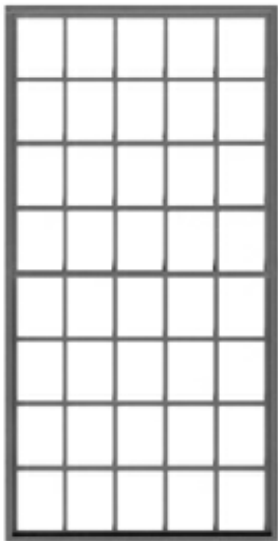
Norm Pullen, of [Norm's O Scale Trains](#) in Maine, sent a photo of his new layout. Norm wants to model the New England area where he is located. The hard granite rock is typical of the area. We look forward to more photos, Norm.



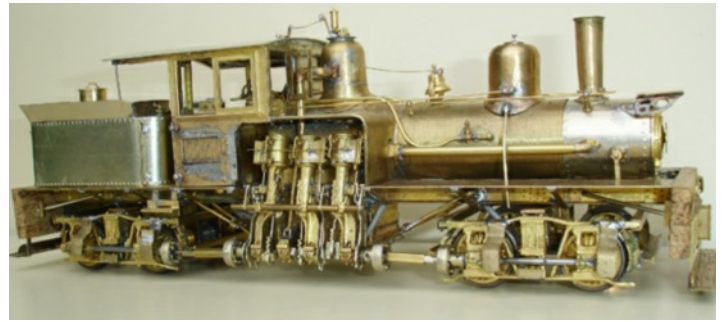
BTS sent us a photo of their first kit in a new line of buildings. They are calling these *Behind The Scenes* kits. The kits are meant as background buildings, but are much more than building flats. The first kit is Godfrey Lighting Supply. The kit features laser-cut basswood, cardstock and plywood; tabbed, easy construction; loads of brass and white metal detail castings; positionable window sashes and doors; signs, interior floors and walls. The building is a scale 81' x 15' footprint. The kit lists for \$159.95. You can see more at <http://www.btsrr.com>



Model Tech Studios has layout ready painted and weathered details for your layout. The work benches and shelving shown sell for \$14.99. The subway entrance is a nice addition to any big city scene. It sells for \$59.99 as a kit. You can see more of their products at www.modeltechstudios.com



Don Tichy keeps adding to the line of O Scale parts. The latest addition is a 20 x 20 steel frame sash for masonry buildings. The part is #2059. See their website for other products.
<http://www.tichytraingroup.com>



Tim Daltry, from Ludlow England, sent us a photo of a Shay model he is working on. Tim did some research on the only Shay locomotive in England, and wanted to build a model of it. He started with a Kemtron kit. Tim will tell us more about the



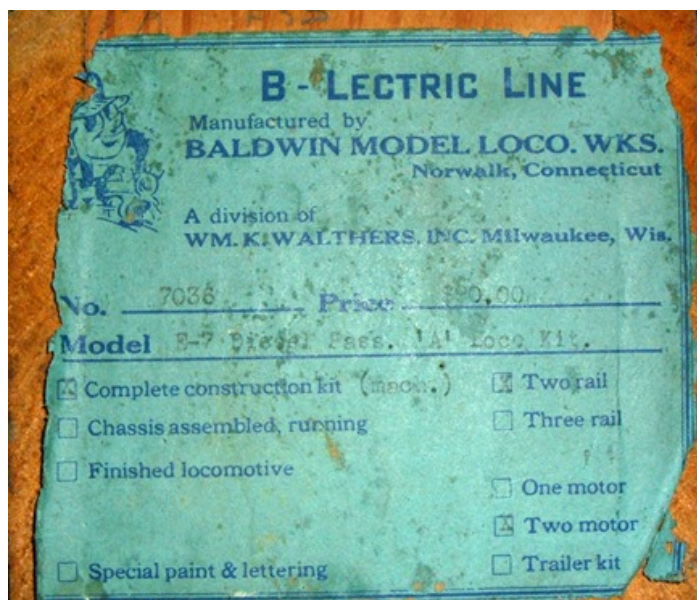
Dave Thompson, of Harbor Belt Lines, tells us that they have completed a production run of their Speeder Turntable Kit which is designed to be displayed on your layout in front of your maintenance-of-way speeder inspection sheds. The kit enables the modeler to have it fully assembled on the tracks being used, or in parts set between the rails or in front of the speeder shed. This kit is available in standard "O" scale, On3 and On30.

Besides producing their own line of building structure kits, HBLOSM also carries a variety of building kits and detailing parts from Altoona Model Works, Bar Mills, Tichy Train Group, MT Albert Scale Lumber Co., Tru-Color Paint and Pan Pastels. To see their full line, of products go to www.harborbeltlines.com

We saw Pat Mucci from [P&D Hobbies](http://www.pandhobbies.com) at the Indy O Scale Show. Pat said that the road construction in front of the store should be done in October, so stop in.



Ted Schnepf at [Rails Unlimited](http://railsunlimited.ribbonrail.com/) tells us that they have a 1932 ARA Box Car kit out. This is a model of the Seaboard Coast Line version of the car. You can contact them at <http://railsunlimited.ribbonrail.com/>



The Neenah Model Railroad Club in Neenah, Wisconsin recently received a donation of this Baldwin Model Locomotive Works E-7 locomotive. It needed a little clean up, and runs fine. This is a nice addition to the club, and the young members really like it.



Jim Herron of [Herron Rail Videos](http://HerronRailVideos.com) is an O Gauger, and sent us some photos of a few Joe Fisher cars he has. The Carpenters Hall car shows the interior detail that Joe would put in his models. The L&N RPO is an example of the wood cars that Joe also made. The prototype car was varnished, and the high gloss paint really captures that look.



Doing the All-Nation article reminded me (Glenn) of my first O Scale car. An All-Nation reefer built in 1967, and still sitting on the shelf by my work bench. Those are Cambell HO scale wood barrels painted silver to look like beer barrels.



SMR Trains (Schneider Model Railroading) sent us a note announcing the release of their newest models, the Western & Atlantic's "Yonah" and the New York & Harlem's "Amenia". These all-brass, limited edition, 1:48 O-scale models are available in both 2- and 3-Rail configurations. SMR's models are configured with premium Swiss Faulhaber motors, and the 3-Rail models use US-made electronics for conventional, transformer-controlled operation.



They are the 14th and 15th locomotives to be released by SMR, which is celebrating its 10th Anniversary this year.

Most of the models have already been reserved; however, a limited availability remains for the two engines. Orders are being accepted at SMR's website, www.smrtrains.com or by mail at SMR Trains, PO Box 753, Mount Laurel, NJ 08054. The price is \$1649.95 plus \$40 S&H.

Terry and Sue Wellman from St Charles Model works sent us a link to their new website. They now sell online. Their business does custom display models for industrial clients, as well as, a line of O and HO scale car loads. Take a look at their site. You can find them at <http://scmodelworks.com/oc/>.

Bob Breslauer of Scale Hardware informed us that they have added many new miniature rivets, nuts, and bolts to their line. These are real nuts and bolts that are made on precision screw machines. They have bolts down to .2 mm diameter in brass and stainless steel. In addition to the hardware, they have nut drivers, taps and dies for all the sizes. To see the complete line of products, look at their web site <http://www.scalehardware.com/>



Scott Mann at Sunset dropped us a note to tell us that they are working on two new projects. The first is a Santa Fe 3460 class Hudson. They plan to do the early version with the large herald and the late versions. The second project is a Southern Pacific S-12 0-6-0 in Black or Green. Contact them and let them know your interest as soon as you can. Production scheduling is related to over all interest. Contact them at <http://www.3rdrail.com/>

Rick Galazzo at Tru-Color Paints tells us they are adding new colors to their paint line. Some of the latest colors include TCP #155 Great Northern glacier green, TCP #156 Western Fruit Express yellow, TCP #157 SOO Line off white, and TCP #158 Canadian Pacific gray. Colors to be released in November are TCP #159 Louisville & Nashville blue, TCP #160 Louisville & Nashville gray, and TCP #161 Louisville & Nashville yellow. See their entire line at www.trucolorpaint.com

Cleveland, OH 2 Rail O-Scale Train Meet

Lakeland Community College, 7700 Clocktower Dr., Kirtland, Ohio 44094 - 9 am to 2 pm - Phone Sam Shumaker at: 440-248-3055

HARBOR BELT LINES P.O. Box 323 Ocean View, NJ, 08230 info@harborbeltlines.com	
Building Flats 	Building Kits
Detailing Parts 	Mt Albert Lumber
DCC Electronics 	Tru-Color Paint
Tichy Train Group 	Piggyback: End Unloading Spur Bulkhead (available now) with Shelter Building (coming soon)

PRESENTING RDC-1 & 2



The Rail Diesel Car (RDC) was built by the Budd Company during the 1950's. RDCs were propelled by a diesel engine under the car body. The RDCs were much more economical than Diesels for these interurban route and can be still be found in operation on tourist lines.

3rd Rail is proud to announce the RDC-1 and RDC-2 (Combine) in ABS. This model boasts two in-truck mounted Canon motors with all wheels driven and sprung for a very smooth and prototypical operation. These RDC cars come complete with interior detailing, overhead LED lighting and passenger figures. 2R Models have QSI "Titan" DC/DCC with Sound. 3R has ERR Cruise, TMCC, and New Diesel Railsounds. Models Made to the Reservations. So to get one, please reserve Today!!! Many Roads Available See Web Site for Details.

THIRD RAIL DIVISION OF SUNSET MODELS INC.

16 Beta Court · San Ramon, CA · 94583 · 925-820-7701 · fax 925-820-7709 · www.3rdrail.com



All-Nation Line

The Bob Colson era

By Glenn Guerra

This started out to be an article about the All-Nation F unit diesel models. While gathering information, I went to talk to Terrell Colson, son of Bob Colson of the All-Nation Line. I had some information about the F units, and thought Terrell could fill in some of the details. It turned out that the F unit story started a little too early for Terrell to remember, but our conversation turned up much more on the Bob Colson era of All-Nation. As a result, I am going to shift the focus of this article a little, but still want to mention what I know about the F units. They say that as soon as you write an article about something, all the information you were looking for turns up. So, with that in mind, let me start with the F unit story, and then get into the Bob Colson era of All-Nation.

The F unit diesel models were started by Frank Libuse, Jr. of Atwater Models. There was a full page ad in Model Railroader announcing the coming of the new models. Being from the area, a few things caught my eye. The first is that 161 W. Wisconsin Ave. is the heart of downtown Milwaukee. I asked Terrell if he knew who Frank Libuse,

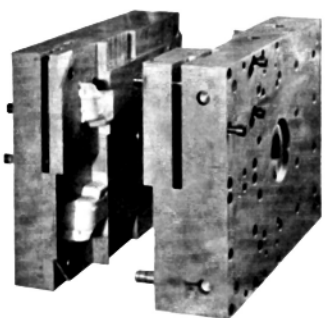
Jr. was, however, it was way before Terrell's time. This is not an industrial area, and Frank must have been some other type of professional with a downtown office.

Note that Atwater Models had big

aspirations, and were going to do the E-7 units also. Boy, if this would have happened, it would have been big. The units that were made had some of the best contours for the nose out of all of the models ever made for this locomotive. The detail was way ahead of its time. Ok, enough dreaming, back to the story. The next time we hear about the models is in an ad announcing some delays, and showing the dies. Note that the address is

This ad for the Atwater F units shows the work that went into making the dies for the models. It also indicates that it was taking longer than expected.

HAVE YOU EVER SEEN A DIE?



Why still no production from ATWATER MODELS? Pictured above is just one die to be used. The die blocks shown here are 16" x 22" and weigh 470 pounds a side. This die will produce the left and right nose and side in one piece. To produce the B unit the blocks forming the nose are replaced by others forming the remainder of the B unit sides. The nose sections shown in the die blocks are merely wooden patterns made to study the contours of the nose section, and placed in the die to show their relative positions. The dies to form the roof and end sections are practically identical to those pictured above.

The engineering, development, and machining of these dies have taken considerably longer than we had originally planned, primarily due to our high exacting standards, and our refusal to compromise with quality.


Watch following issues for photos of end, roof, sides, etc.

ATWATER MODELS

1229 S. SIXTH STREET — MILWAUKEE 4, WISCONSIN

878

The Model Railroader



ATWATER MODELS
161 W. WISCONSIN AVE. ROOM 5115
MILWAUKEE 3, WISCONSIN

September 18, 1947

ANNOUNCEMENT

To: O GAUGE MODEL RAILROADERS
Subject: A NEW SUPERDETAILED COMPLETELY DIE-CAST DIESEL LOCOMOTIVE

Atwater Models is a new organization. Its conception was due to a model railroader — myself — who wanted to see some really well-engineered postwar models in O gauge at a moderate price. But nothing happened! So, having been an industrial designer by trade, I took the bit in my teeth. I measured prototypes, scaled photographs, made drawings, and haunted the die makers and die casters. The results are for you to judge.

Atwater Models' first kit for an O gauge Electro-Motive F-3 locomotive, interchangeable passenger and freight, will include the following features:

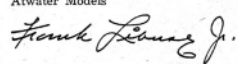
1. Superdetailed pressure die-cast hard alloy zinc nose section (halves) and sides, separate roof and separate ends; all tongue and groove fits.
2. Screw driver assembly; all holes drilled and tapped.
3. Die-cut press-fit acetate windows and screen grills.
4. Formed steel handrails and grab irons.
5. Six lighted sections in the nose compartment: headlight, Mars light, two number plates, and two marker lights.
6. Superdetailed die-cast truck parts. Eleven die-cast parts make up each truck.
7. Self-aligning replaceable bronze axle bearings in truck journals.
8. A permanent magnet motor specially designed for Atwater Models by the Miller Laboratory, mounts below the floor and bolster and between the wheels. Motor, gears, brushes, and axles all enclosed in a die-cast self-equalizing housing.
9. Wiring self-contained in housing for two-rail D.C. operation. (Wire to outside third or center rail necessary for three-rail operation.)
10. Rectifier and hand reverse mounted in locomotive for A.C. operation.
11. Proper weights furnished with motor truck for peak performance. Keeps dummy units light weight.
12. Spring stabilized superstructure.
13. All metal parts to be painted are undercoated with Iridite (a special process developed for the Army which creates a perfect paint base on metal).
14. Exploded perspective assembly drawings.

The price is still tentative but in the neighborhood of \$60 for an A unit with one motor truck, and \$40 for the A unit dummy; \$55 for the B unit with one motor truck, \$35 for the B unit dummy.

At present writing, mid-September, we are completing the truck dies and working with the superstructure dies. Production has been promised for November. Kits should be available shortly thereafter.

Beginning in the December issue of The Model Railroader, a series of photographs showing details of the locomotive will appear in the Atwater Models advertisement. Watch for them. For those of you who want pictures as soon as possible, your dealer is being supplied. If, however, through some oversight he has been overlooked, drop Atwater Models a card with your name and address and that of your dealer, and we will send you both the latest photos and information.

The next Atwater Models diesel will be the 2000 h.p. Electro-Motive E-7 "Super Chief" passenger locomotive, following the F-3 to the market in 90 to 95 days.

Very truly yours,
Atwater Models

Frank Libuse, Jr.

P.S. Your Atwater diesel unit kits (A, B, and A&B dummy) come in a hand-finished case made of 1/2" pattern pine treated in natural finish and designed to contain your finished loco. The loco frame is drilled and tapped for mounting in the case.

This ad from the November, 1947 Model Railroader caught my eye, and I wanted to know who Frank Libuse, Jr. was.

now 1229 S. 6th St. in Milwaukee. I went to this location, and there is a small industrial building there today. Look at the size of the die and the work that was going into this project. To make the nose contours, a 1" to the foot model was made and a pantograph mill was used to follow the contour and mill the mold cavity. When the models finally came out, they were advertised as Atwater Models, but being sold by General Models Corporation in Wheaton, Illinois.

For collectors, the dies were marked Atwater Models, and this casting mark shows up on some models. The die was then reworked, and a General Models casting mark showed.

Finally, the dies were reworked again to show All-Nation. Terrell did not know who started General Models, but he did know how they came into the All-Nation Line. This is all I know so far. If any of you know more, please let me know.



For the collectors, this is a very early box showing the Atwater Models being sold by General Models corporation of Wheaton, Illinois. The photo on the box was used in ads, and does not do the models justice.



This photo came from Terrell, and shows his dad, Bob Colson, on the C&O display layout. This would be around 1933, and probably at the Century of Progress Fair in Chicago. The big building right behind Bob is a model of the Merchandise Mart, a landmark building in Chicago both then and today.

there, a teenage girl and her aunt decided to see what the train layout was all about. Terrell said that his dad must have been impressed because he told him in later years he kept handing the girl (Marsha) business cards so she could not leave. The layout moved on in Texas, but Bob stayed in touch with Marsha, and he would ride the Texas Electric railway to visit his new girlfriend. The C&O tour ended, Bob came back to Chicago, and went to work for the AAR on another display. Marsha, the girl from Texas, and Bob were by now engaged. She came to Chicago, and they were married in 1940. When the war broke out, Bob was drafted ending up in the 79th Infantry Division as a message center courier chief for the artillery units. While in the Army, George Krambles told Bill Janson, another well known model railroader from the time, that he and Bob were in the same 79th Infantry unit. George was getting mail from both of them, and noticed that the APO address was the same. Bob

Now, back to the Bob Colson part of the story. Terrell told me that his dad worked for Lionel in Chicago in the 1930's. Lionel had a Chicago showroom, display, and service center in the Merchandise Mart. Bob worked for Lionel as a service man repairing customer trains and keeping the display layout running. Other local model railroaders were working there as well, and even Cliff Norton, the actor, worked there. In 1933, the C&O Railroad had a display layout at the Chicago Century of Progress Fair. The layout and exhibit were made by Ed Alexander, and featured the C&O, Erie, Pere Marquette, and the Nickel Plate railroads. Bob went to work for the Chesapeake and Ohio Railroad maintaining and managing this layout. When the fair closed, the layout toured the country and Bob found himself in Dallas, Texas. While

and Bill were able to visit a few times while they were in the Army. Bill later became the South Shore Line's master mechanic. Bob served through the entire war, and was discharged in 1945. After the war, Bob went back to work for the AAR. Soon, however, he was working for Newark Electric in Chicago. Newark Electric was an electronics store that catered to the electronics hobby. For whatever reason, they also carried model trains. The train section was on a mezzanine at the back of the store. The store was right in the heart of downtown Chicago, known as the loop for the elevated tracks that make a loop around it. Bob Colson was hired to run the model train section of the store. Bob was married and setting up home in the



The cover of the Newark catalogue from after WWII. This catalogue had 31 pages of railroad models and supplies. The Challenger was a General Models kit that All-Nation discontinued when Jim Wilson purchased General Models.




Bob Colson at the controls of his model railroad in the attic of the Chicago bungalow where he lived.

Midwest, and had a lot of Chicago members. A few electric railways were still hanging on after the war around Chicago, and they soon became favorites of the modelers. Bob was no exception to this, and took up modeling electric railroads, as well as steam railroads. At this time, these railroads were very much contemporary railroading. There were lots of trains, but the companies were short of cash, so the equipment was old. The Chicago Aurora and Elgin Railroad was still running 1906 equipment in the 1960's when they ceased operations. Back at Newark Electric, Bob was doing well managing the railroad section of the store, and was getting noticed around town. At the same time, there was another hobby shop on Lake street a few

Chicago area now, and he started a home layout. The layout was in the attic of the bungalow where he lived. Bob's layout was typical of the time, featuring a double track around the walls with some passing and storage tracks. Kaydee couplers and DCC were not around, and operation consisted mainly of running the trains. Track work and signals comprised most of the scenery, your imagination supplied the rest. During the depression, the electric railway business declined significantly, and Bob's generation were the young people to see that decline. There was a railfan group formed called the CERA or Central Electric Railfans Association in the 1930's, and they are still active today. The group was based in the



Bob's attic layout shows his early interest in electric railways with this three car North Shore train.



ALL-NATION
ADDs BOB COLSON

Here's good news for Model Railroaders on the lookout for friendly, quick, intelligent service! Something NEW has been added at ALL-NATION . . . the genial personality of BOB COLSON behind the counter. BOB is well known as a real authority on model railroading . . . knows his engines "from scoop to nuts" . . . was formerly manager of the famous C&O model railroad layout which toured the country from coast to coast. For the past two years BOB has been serving model railroad customers of another hobby shop in Chicago. Now you'll find BOB COLSON here at our store. Write him . . . come in and greet him . . . at ALL-NATION now!

HOBBY SHOP
157 WEST LAKE STREET
CHICAGO 1, ILLINOIS

*"If it can be had,
You will find it at
ALL-NATION"*

An ad from the February, 1948 Model Railroader announces that Bob Colson is now with the All-Nation Hobby Shop. Bob was getting known around town, and his hiring was a news worthy event.

blocks away called All-Nation Hobby Shop. This store was owned by Jim Wilson and his wife Leighia. They had a general hobby store that carried all types of models. In 1948, they hired Bob Colson away from Newark Electric. As I mentioned, Bob was beginning to get a name around town by now, and this was enough to make his hiring a news worthy event. The store was located at 157 West Lake Street in Chicago. In the November 1949 issue of Model Railroader, All-Nations's ad announced that they moved to 182 North LaSalle Street in Chicago. Jim Wilson had the basement under this store and the store next to it. All the shipping and packaging was done there. At the time of this writing, the date is not clear, but around 1950, Jim Wilson bought General Models Corporation in Wheaton, Illinois. Terrell was born in 1953 and, as a youngster, he remembered the basement having a low ceiling for most adults, but Jim Wilson was short and it fit him. The manufacturing was now concentrated at the building in Wheaton, Illinois, a short ride on the Chicago Aurora and Elgin Electric Railway. Bob Colson bought the entire All-Nation Line and the hobby shop from Jim Wilson in 1958.



Bob explaining to a very young Terrell how a steam engine works while they were on a Nickel Plate fan trip in the late 1950's.



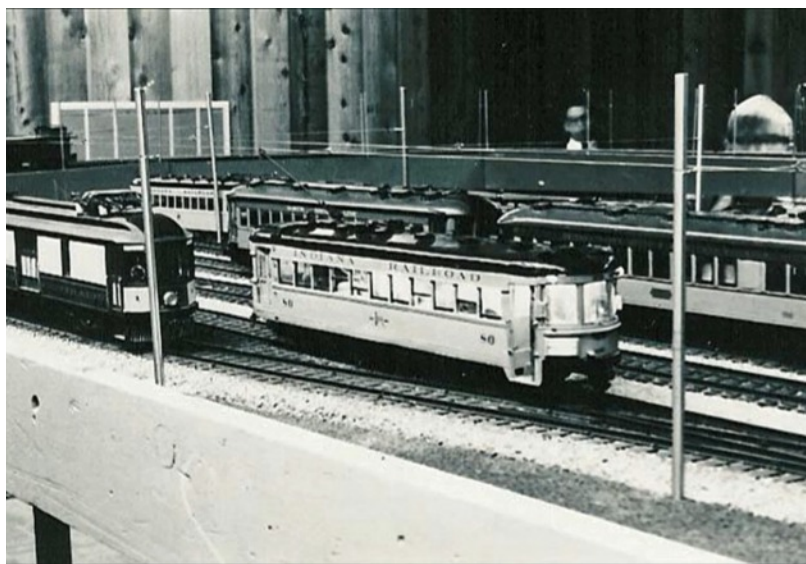
Terrell Colson mans the cash box at a train show. Terrell pointed to the boxes on the far left of the table as being the green gift boxes left over from the liquor store they moved into. There was a lot of boxes, and rather than throw them out, they used them. The photo was taken at the first All-Nation electric railway meet. The guy getting the change was Paul Allodi.

I asked Terrell who developed the kits we all know. He said almost all of them existed at General Models before the sale to All-Nation. Under All-Nation, he remembered a CB&Q caboose model that Hank Balinski did the truck patterns for. He also remembered a 2-6-2 prairie type of steam engine that had a boiler done by Cary Models. This model was sold by Cary, like the conversions they did for Mantua HO scale engines. I have to admit that I have never seen one. The All-Nation ten wheeler that most of us are familiar with was originally a Varney Kit. The boxcars and refrigerator cars were General Models kits that used components that All-Nation had produced by a variety of small job

shops. All-Nation packaged the components as kits. Terrell said that almost all the manufacturing was jobbed out. The sides, both metal and wood, were sent to various shops to be silk screened. I asked Terrell who did the artwork, and told me the railroads supplied it all. The Santa Fe was the best, Terrell said, and often All-Nation would have a new paint job out before the cars actually appeared on the railroads. The Santa Fe was always big



Bob Colson smoking his pipe at the All-Nation display layout. The models on the table to the left are Central Locomotive Works models. The freight train coming at us is led by one of the short lived All-Nation CB&Q prairie models.



It wasn't long before the display layout got overhead wire.

on promotion through model trains. They participated with Lionel to do the F-3 diesels that were so popular. Because they helped with this, the Santa Fe units were the only ones available for a long time. The Santa Fe also sponsored the Santa Fe display at Chicago's Science and Industry Museum. In 1958, Jim Wilson sold General Models Corporation to Bob Colson. Jim continued a relationship with All-Nation by doing all their printing for the box labels. By the 1960's, All-Nation was the name in O Scale trains. In 1961, the store they



A nice overhead view of the display layout with Bob talking to the customers.



Members of the Model Railroad Industry Association at one of their dinners. Left to right are Bruce Walthers Jr., ?????, Art Dubin , Bob Colson, ?????,

were renting on LaSalle Street was closed, and the owners leveled the building for new development. The location for the store on Madison Street was found by Rich Bozack who worked for All-Nation at the time.

Those of you electric railway modelers will recognize that name. Rich went on to own Downtown Hobbies, and in 1981 that became Chicagoland Hobbies. This was the place to go if you were interested in electric railway modeling. Rich's son still runs the store today, and they are on the northwest side of Chicago, one half block from the Norwood Park train station. The new All-Nation store on Madison Street was a liquor store prior to All-Nation moving in. Next to the liquor store was the Lawrence P. Dalieden Co. which sold religious supplies. The religious supply store and the liquor store were not a good match. Terrell

said the "straw that broke the camel's back" happened when the liquor store started offering free wine tasting. At that time, a few blocks to the west was not a good neighborhood. The railroads had offices in this area to hire day laborers, and that attracted a rather rough crowd. When that crowd started showing up for the free wine tasting at the liquor store, the store had to go. Terrell told me that the liquor store had a lot of green gift boxes stored in the basement that were left behind, so All-Nation used them until they were gone. If you have a green



Bob Colson appearing on the NBC affiliate TV station in Chicago.



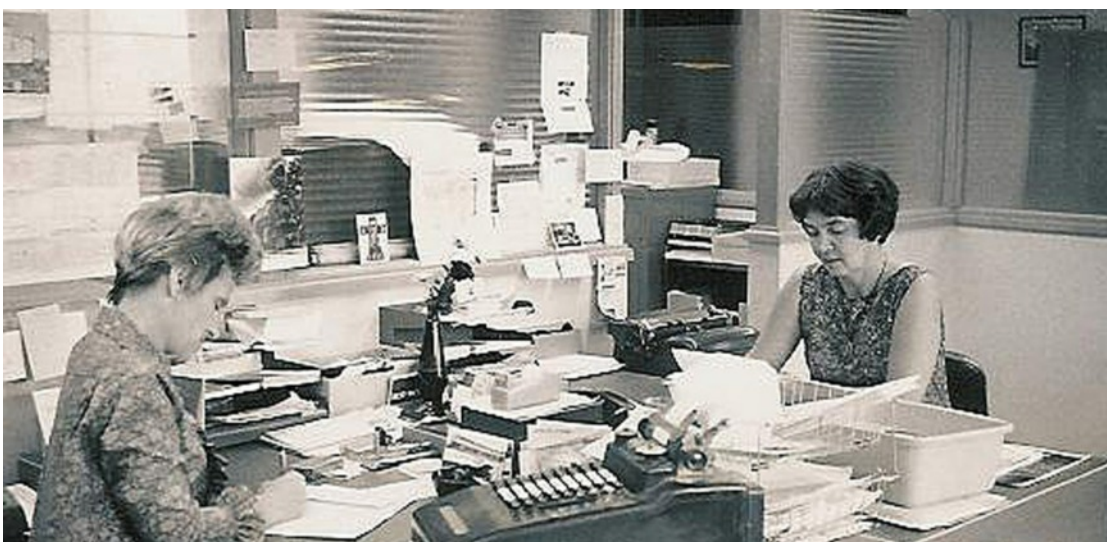
Marsha Colson, on the right, Bob Colson, Jr. and Jenny Peschka, on the far left, in the assembly room at the Park Ridge factory. You can see Jenny counting out parts on the left.

box with your All-Nation model, you now know where it came from.

Another interesting part of the All-Nation story at this time was the display layout. Bob Smith, who many of you know as Central Locomotive Works, was living in Chicago, and this was where Central Locomotive Works was started. Bob built a module layout for the 1959 NMRA show in Chicago that was a double track loop, or octagon, depending on how it was assembled. The layout had no legs, and was just laid on the folding tables at the shows. Bob Colson bought the layout when Bob Smith moved to Florida, and put legs under it. The layout

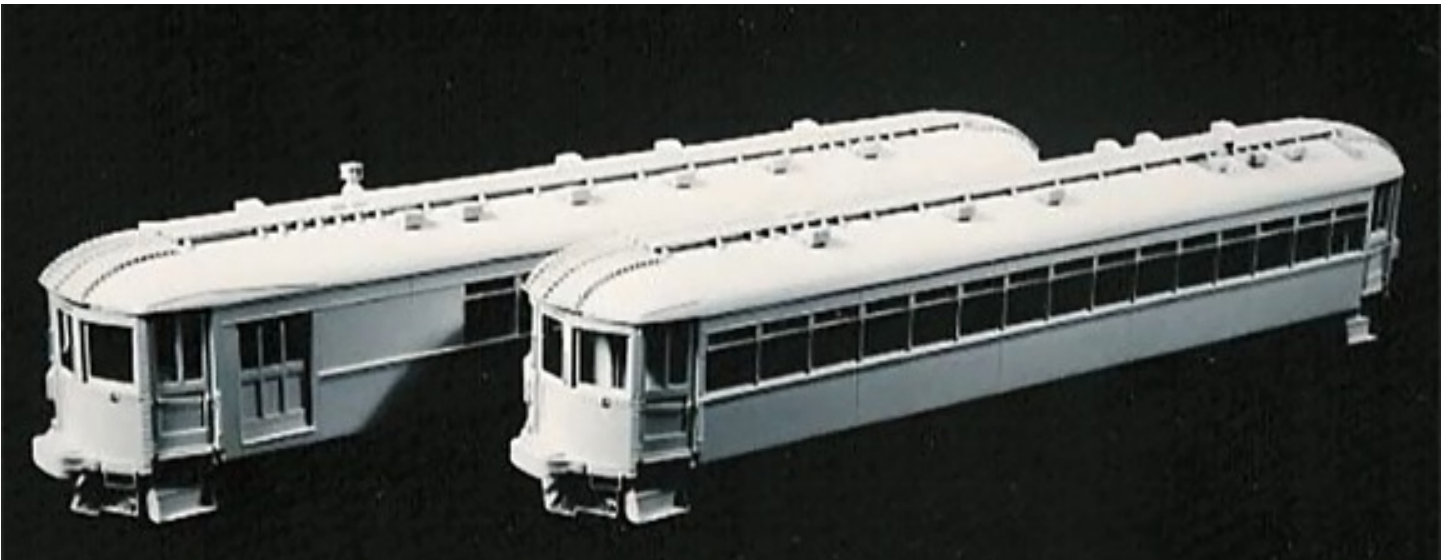
was used for many shows. Terrell remembers it as being a bit on the heavy side to move around. The ballasting of the track was done by John Kunze of John's Ballast. Terrell told me that each section had a different color ballast so John could show off the different colors that were available. The next time the layout appeared was about 1964 at another NMRA show. The layout was becoming common at some of the larger train shows. If you remember, Bob liked electric railways, and it wasn't long before the display layout got wire. The wire was installed by Howard Odineous around 1968 or 1969 as Terrell remembers. Howard was a name well known to old timers around Chicago. He was a North Shore Line motorman, and was one of the founding members of the Illinois Railway Museum. Terrell said Howard came up with an ingenious way of doing the wiring. The poles were stainless steel and were set loose into holes on the layout. The overhead wire was installed, but not soldered to the poles. When the layout was dismantled, the wire was removed as a unit and rolled around a cardboard drum. The last that Terrell knew of the layout, Ed Miller in Joliet, Illinois was using it, and it was last seen about 20 years ago.

By now Bob was a mover and shaker in the model railroad business. Along with other manufacturers like Bruce Walthers, Jim Conway (Con Cor), Harry Hageman, and others, the Model Railroad Industry Association was formed. The group sponsored a few train shows, and would get together once a year for a dinner. Bob also appeared in early TV



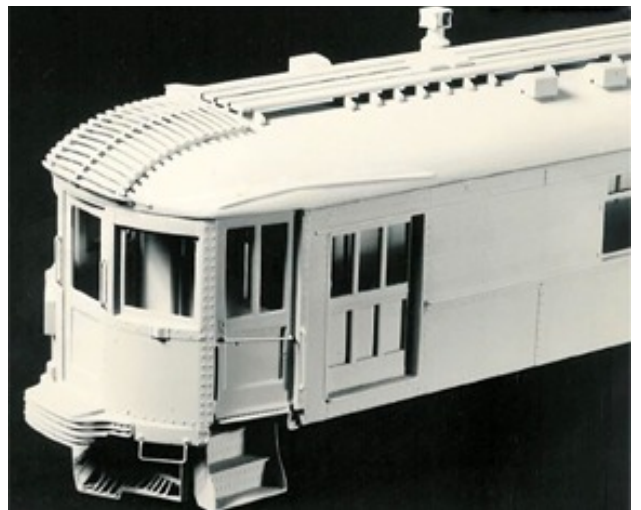
Marsha Colson, on the left, and Fran Pietschmann at work in the Park Ridge, Illinois office. Fran was Bob Colson, Jr.'s mother-in-law.

shows. Terrell said the NBC studios were close to the store, and NBC came in a lot looking for material. By the late 1960's, Bob was starting to have some health problems. The manufacturing was moved to Park Ridge, Illinois around 1964. By 1968, Bob Colson, Jr. was running the store in Chicago, and Bob, Sr., along with Marsha, were running the manufacturing. At that time, the All-Nation Hobby Store and the All-Nation Line were separated into two different entities. According to Terrell, there were around a dozen or so part time helpers. There were two rooms in the back. One did light manufacturing. Terrell said that, for example, in one room, they would install the wheels on the axles. The castings for the models were drilled and tapped in the same room. In the other room, they did what they called assembly. Each kit had a packing list and number. The packing lists were kept in a binder in the office. At the start of the day, the packing list would be pulled and taken to the assembly room. The appropriate parts were pulled and placed in small bowls. When the right number of parts were in the bowl, the contents were dumped into envelopes and sealed. Terrell and other young and up-coming modelers would also work part time. Terrell remembers one of the ladies, Jenny Peschka, very well because she would bring in the best cakes and cookies. The All-Nation Line was also more than just what they made. Terrell said kits would be sold on consignment for other manufacturers. One of these was Bill Zimmer, and if you keep your eye open, Bill Zimmer kits still keep popping up. Another association was with Bill Clouser of St. Louis, Missouri. Bill was a professional model builder by trade, and as a hobby he



The North Shore Line Jewett built coach and combine models were produced by Bill Clouser in St Louis, Missouri. All-Nation had the exclusive sales rights to these cars.

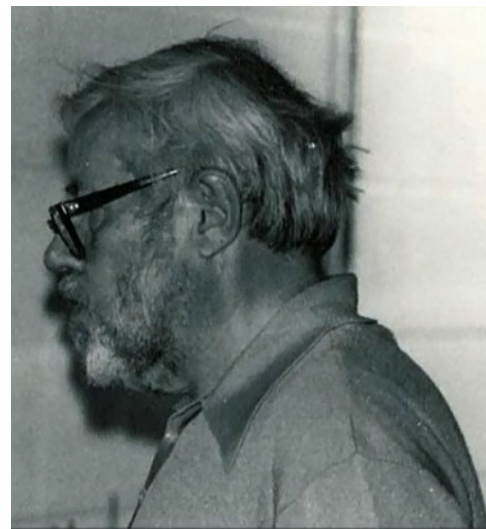
modeled in fine scale. Many of the patterns he created are still being used today by various manufacturers. The original All-Nation drive acquired from General Models was a gear tower drive. Bill Clouser had modified that drive to use the link chain and sprockets used on many models today. All-Nation adopted the same drive. Bill was also a very early practitioner of cast cars in flexible molds. According to Terrell, in 1969 or 1970, they were in Green Bay, Wisconsin at an NMRA show when Bob Colson and Bill Clouser started talking about the All-Nation Hobby Store having an exclusive on the sale of some North Shore Line Jewett built coach and combine models. Terrell said they were in the parking lot talking, and at 11 PM he went to bed. The next morning, Bob and Bill were still talking in the parking lot. When I asked Terrell about the motors in the diesel models, he told me that General Models, and later, All- Nation Lines, were using a Pitman motor. When Pitman discontinued the motor, All-Nation went



A close up of the Bill Clouser model of a North Shore Jewett built combine. These models were cast in a filled epoxy, and the detail was years ahead of it's time.



The Colson family from left to right, Bob Colson, Jr., Marsha Colson, Bob Colson, Sr., and Terrell Colson. The occasion of the photo was Terrell Colson's wedding. Terrell said it was unusual to have all of them in a photo because one of them was usually taking it.



Bob Colson, Sr. late in his life. Terrell said Bob was told to lose weight, and he diligently did.

to Bassler in St. Louis, Missouri. Bassler made lots of small instrument motors, and All-Nation bought the design and all remaining stock of a motor that would work for them. All-Nation eventually started producing the motors, jobbing out the component production, and assembling the motors themselves. Another familiar name in the hobby improved the motor by modifying it with ball bearings. That person was Stu Kleinschmidt. Stu was doing this to his own models, and for customers. All-Nation modified their motor to use Stu's improvements. In 1971, at the New York Toy Fair, All-Nation made a deal with Atlas and AHM to distribute the new plastic injection models Atlas and AHM were having made. Finally, by 1972, Bob's health had begun to deteriorate, and the manufacturing was sold to Bill Pope. Bill ran it one more year in Park Ridge before moving it to his building in Wheaton, Illinois. The store in Chicago continued until January 1978 being run by Bob Colson, Jr. And so ended the Bob Colson era of All-Nation. Bob was a giant in the O Scale world, and we are all better off for it.

I would like to thank Terrell Colson for all the help and photos to put this article together. Terrell is an electric railway modeler, and has a get together at his house during the Chicago March Meet. He is recently retired, and is fascinating to talk to about people and events in our past. Thanks again, Terrell, and all the best to you.

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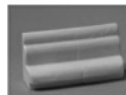
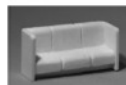
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Painting Railroad Cars

Part Two

By Glenn Guerra

In the last issue, we discussed a little about what paint is and how it was applied to railroad cars. We saw how paint binders and additives change, and how those changes can make some difference in the appearance of the paint job. We quoted a C&NW paint specification from 1941. At that time, they had two different paint specifications for the same color paint to be used on wood cars or steel cars. The steel car paint had alkyd resins added. This change made a subtle difference in the gloss of the paint. The formula for wood cars produced a very flat finish like the heavy body stain we put on houses today. The steel car paint would have looked more like semi gloss finish house paint. If you are doing a model from an older era that was wood, you may want this flat finish. In this issue, we will look at some of the common model paints and painting techniques to see some of these differences. The object here is not to see who may or may not have the best paint, but to look at what we may want to try to get the desired effect. Then, we will look at some things that can be done with what kind of paint.

Let's start with comparisons first. I masked off a piece of styrene, a piece of basswood, and a piece of birch plywood and painted stripes on them. I sprayed the paint according to the manufacturer's recommendations and used their thinners if needed. The styrene is a flat non absorbent surface, whereas the basswood is absorbent and very close grained. The birch is a bit of an open grain compared to the basswood. Next, I sprayed one end with Testors Glosscote from a spray can on one side. On the other side, I sprayed Testors Dullcote from a spray can. The center third was left natural. The samples were photographed in daylight and two types of florescent light. The samples are arranged on three separate pages by lighting type later in this article. Take some time to study the samples, and note the differences lighting can make.

The basement samples were shot using 6000 Kelvin florescent lighting which is typical layout lighting using daylight bulbs as the light source. The two wood samples show very little difference in gloss, and changed when the Glosscote and Dullcote were applied. On the hard styrene surface, the Scalecoat showed the highest gloss, followed by the Model Master Enamel. The Tru-Color was the flattest. The splatter on the Glosscote was my fault caused by the can running out when I was painting. A word to the wise, this will mess up your model! Also note the apparent change of color when Glosscote or Dullcote is applied. The camera exaggerated this, but I have noticed it on some models I have done. I used a clear finish over the decals only, and you cannot see it with your eye, however, when I photographed the model, there were cloudy spots over the decals. If you like to photograph your models, make some samples first to see if the finish will affect your paint job. This is an example of how the camera sees things differently than your eye. On the wood samples, I sprayed right onto the wood. I personally like the look, but some people do not. If you are painting wood, the wood grain will show unless you seal the wood first so the paint does not soak into the wood.

The paint booth samples were shot using a 3000 Kelvin florescent bulb. This bulb does not match daylight, and the colors will look different both to the camera and to your eye. You will not be able to see it with your eye because you cannot capture the image to compare it when you go outdoors. On these samples, the light angle was lower and highlighted the gloss more. You see this effect when using flash photography on models. There will be a bright spot where the flash is reflected. The Scalecoat paint will gloss even on wood. The light also shows more of the wood grain. All three samples were shot in the same location; therefore, the light reflection on all is from the same angle. Notice how on the styrene the Glosscote did not affect the gloss of the Scalecoat, but the Dullcote wiped out the gloss thereby changing the apparent color.

The last set of photos was done outside in daylight. There is not much change on the wood samples, but the hard styrene showed a lot of change when Dullcote was applied. The wood samples showed some difference when the Glosscote or Dullcote was applied, but not very much. On the birch sample, all the paints showed the open pores of the birch and the grain of the wood.

The differences between hard or absorbent surfaces and raw wood are apparent in these samples. To paint styrene or urethane and have it come out flat, it appears that the Dullcote or some equivalent may work best. If you want high gloss on wood, the wood needs to be sealed first. The important thing to remember here is that different paints will give different looks depending on how they are used, and what they are used on. If you are not getting the look you want, it may not be you. Try some different paints and/or techniques. Make samples of your methods and paints for comparison.

Another thing to consider is thinners. In general, use what the manufacturer sells. However, if you are interested and want to experiment, I will provide you with some information. Thinners have different properties and will thin different paints. Thinners are generally used to aid the application of the paint, but can give a higher or lesser gloss. A thick paint, or one thinned with a high volatile thinner, will dry before hitting the surface when spraying causing a very flat rough finish. This may be what you are looking for. Slow drying, or less volatile thinners, will give smooth surfaces, but the paint will be more prone to run. For this discussion, I will mention the common thinners that can be purchased at most hardware stores. The most volatile is acetone; followed by naphtha; and finally mineral spirits. These are the petroleum based solvents. Xylene (sometimes known as toluene) is derived from coal tar or pine tar by distillation. Xylene falls near naphtha with respect to volatility. Turpentine is distilled pine sap, and about in the range of naphtha. It is not as refined as xylene, and is more of a range of solvents. Lastly, there is denatured alcohol which is methanol or wood alcohol, take your pick. These thinners vary in volatility and their ability to thin different paints. Oil paints can be thinned with mineral spirits, naphtha, xylene, turpentine, or acetone. Alcohol will not work with oil based paints. Acetone is the primary thinner for lacquer with the addition of xylene to control drying times. Mineral spirits is the least volatile or slowest of all with respect to evaporation, and usually does not work well in model paint. The primary use of mineral spirits is to clean brushes and thin house paint. The inexpensive price makes it desirable for clean up, and it will work on oil base model paints. Mineral spirits tends to dull high gloss paints and generally dilutes the film weakening the paint. Naphtha, also called VM&P Naphtha, is used by a sign painter friend of mine to thin high gloss enamel. The naphtha will evaporate quicker than mineral spirits helping to control runs. Turpentine is seldom used any more. Turpentine is not as refined as the other solvents and contains a lot of other organic compounds that can deteriorate with sunlight and darken paint. Alcohol and water will mix, so things that are water soluble can have alcohol added to them. The alcohol will evaporate faster than the water and may give you a desired result. Generic lacquer thinner is really only good for clean up. Since the basic ingredient of lacquer thinner is acetone with some xylene mixed in, the high volume of acetone makes the generic lacquer thinner very volatile, and it will evaporate very quickly. If you try this in your model paint, it will be drying as you spray, making the finish very flat and rough. Another reason to be cautious when using high volatile generic lacquer thinner to thin your paint is that the very high evaporation rate will cause the surface of your model to cool, and water vapor in the air will condense on your paint causing it to blush or get cloudy. This will not make you happy! When automotive lacquer was common, there were many grades of thinner to compensate for this ranging from fast to slow drying. If you want to use the generic hardware store lacquer thinner, you may want to try adding xylene to it to slow down the evaporation. As I mentioned previously, use what the manufacturer supplies first. If you want to experiment, you may get some different looks that might be appealing. Read the small print to see what you are working with. Lastly, remember if you start down this path, you are out there on your own, so don't call me or the paint manufacturer complaining that it did not work. Experiment first.

So, now we see that different paints, and combinations thereof, give some different effects. Experiment for yourself a little like I did. The next three pages are the paint samples I have referred to. You can study them, and I would suggest trying them on your own. Following these samples, is some information on driers.

These samples were photographed in the basement.

Lighting was 6000 Kelvin daylight florescent bulbs



These samples were photographed in the paint booth.

Lighting was 3000 Kelvin daylight florescent bulbs

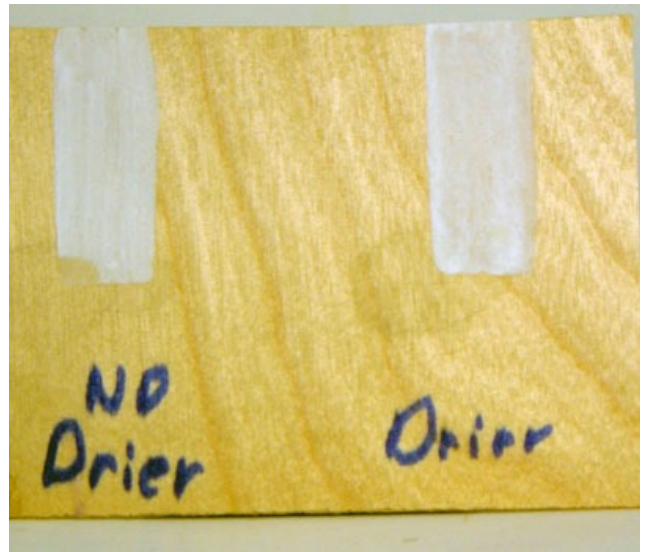


These samples were photographed in daylight.

Lighting was natural daylight



Paint driers make oil base paints set up quicker. In the first article in this series, we discussed what some of the driers are. I hear grouching sometimes that oil base model paints take forever to dry. This is not a defect in the paint. The manufacturer is actually doing us a favor. We all have bad habits, myself included, when it comes to model paint. We all open the bottle and stick the brush in the paint. Next, we groom the brush on the lip of the jar and paint something. Lastly, we put the brush back into the paint. We have just done the worst thing you can do with oil base paints. Remember that oil base paints set by a polymerization reaction and an oxidation reaction. By dipping the brush in the paint, we are introducing air to the paint. Then, we make it worse by grooming the brush on the lip of the jar. Now we have super aerated paint running into the jar. Next, we paint the object loading up the paint in the brush with air. The final insult is putting the brush back in the jar, and doing it all over again. This is the fastest way to ruin a can of varnish or sign enamel. The best practice is to pour out what you will use and close the jar. Use the paint you have poured out, and throw the leftover paint away. As I said, we all do this. The paint companies know this, so they put very little drier in the paint. When I was thinking about this for the article, I wondered if that could be changed. I did an experiment, and it worked. Let me say again that this will work on oil based paints, not lacquer paints. I went to the craft store and looked in the artists paints for Japan drier. Japan is a term that goes way back in paint, and there are as many stories about where it came from as there are people to tell the stories, so I won't even try to explain it. What's important to us is that when you add Japan to oil paints, you speed up the drying process. For this experiment, I took put some Model Master enamel paint on a palette. First, I painted some on a piece of birch plywood. Next, I added some Japan to what was left on the palette, and painted another sample on the same birch plywood. After about four hours, I tried to dissolve the paint with mineral spirits. The sample without the drier would dissolve, but the sample with the drier would not, so I was able to considerably speed up the drying. This may have some possibilities, and should work on all oil base paints. Try some of your own experiments. I'm going to mess around with this more in the future.



This is a sample I made to experiment with Japan drier in Model Master enamel paint. You can see where I was able to dissolve the corner of the sample with no drier.



This is an example of a subtractive paint technique I have been trying. Look at the step treads. I wanted to make them look like the paint was worn off, so I used a fiberglass scratch pen. Then, I put some India ink on thinned with alcohol. The India ink soaked into the raw wood, but did not adhere to the paint and darkened it.

Let's get to railroad cars. I want to talk about what happens to a railroad car after it leaves the shop. There are three things happening, color fade, paint wear, and dirt accumulation. I am not going to get into color in this article, we will do that in the next issue. Let's concentrate on the other two. Basically what's going on here is subtraction or addition, either removing paint or adding dirt. I want to look into what we can do by using the properties of paints. For most of my life, I have been weathering my cars by addition of material to look like dirt. The last few years however, I have been experimenting with subtraction, and I like some of the results. My first attempt at this was on the steps and platform of a CB&Q caboose model. The material was wood. My thought was, if the steps and platform were painted, the foot traffic would be wearing the paint off. I tried staining the wood with India ink before I painted the model. Then, after I painted it, I used a fiberglass scratch pens and worked the paint off where people would walk.

The India ink was very thin and I rubbed it off also. So, I reapplied it, and it worked well. I thinned the India ink with alcohol because it soaked in better than when thinned with water. I'm sure I'm not the first guy to think of this, but it did work. What is important is the thought process. I wanted to duplicate some paint wearing off, so why not try wearing it off. This would work well on a wood model, but what could I do on a hard surface model of urethane, styrene or brass?

I was thinking about how to do this for this article, and I thought I would try a non wood car to see what might work. The effect I was trying to duplicate was a photo take by Joe Collias in 1961. At first glance, the light spots on the car look like sun flares, but when you enlarge the photo, you see that the paint is worn off the car. If you look close, you can see the wood grain. The reason the lettering is not worn off is because the lettering paint was thicker and protected the paint under it. I can't use the scratch off method like on the wood car because I will end up

with bare styrene or urethane which will not absorb the India ink. But, remember the differences in paint. Most model paint is oil based, and will set. I could try painting the car with a gray color to look like weathered wood, and let it dry for a long time. Then, I could paint the car with the same paint only using the body color. I would need to go lighter on the wood and heavier on the steel parts where I wanted the paint to stay. Now, before the paint sets, I could try to wash it off with mineral spirits. The mineral spirits will thin the fresh paint, but will not attack the gray paint that is already set. I should be able to go slow, working in small areas. The brush will need



This photo was taken by Joe Collias in 1961 at Council Bluffs, Iowa. This was the look I wanted to try and duplicate on a non wood material like urethane or styrene.



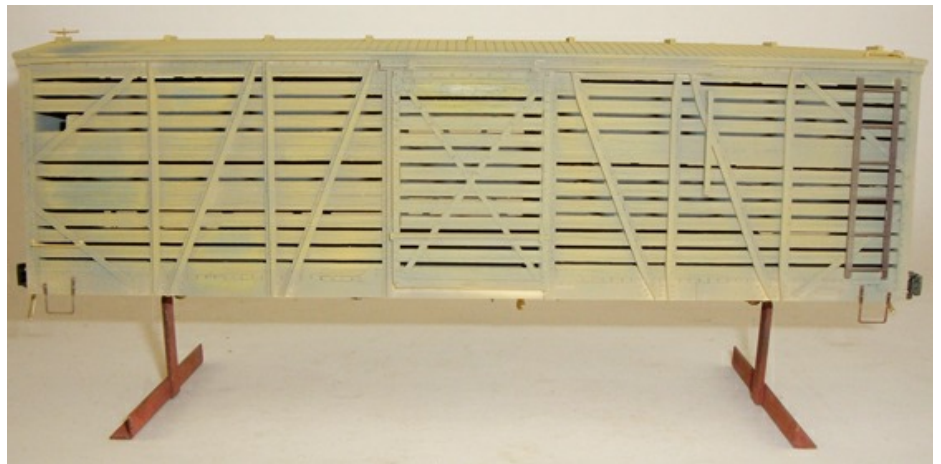
When I enlarged this photo, you could see the wood grain very clearly. The paint is worn off of this car. The lettering held up because the lettering paint is thicker and also protected the body paint.

to be cleaned often, and kept a little on the dry side. Another option would be to put the gray on with lacquer paint, and the color with enamel. The relatively mild thinners used for the enamel would not dissolve the lacquer. If it was done the other way around, there is a good chance that the strong thinners used in lacquer might damage the enamel base. If you wanted to try the lacquer on top of the enamel, I would try xylene to remove the lacquer while it is still soft because it probably would not damage the enamel base. By knowing something about paint and thinners, we can start to come up with ideas on how to get the desired result. Now let's try it.

To do this project, I chose a stock car since the photo I was trying to emulate was of a stock car. I chose a Rails Unlimited urethane kit to start with. For this first test, I decided to go with all oil paints. After putting the basic body together, I sprayed the wood parts a gray color. I tried to stay away from the metal parts to keep from getting the paint too thick on the details. In addition, since the car will have four coats of paint on it when it's done, I did not put the details on yet. During the assembly, I broke off one of the slats on this side of the car. Rather than try to fix it, I left it off. Since I was going to do a heavy weather job, I thought it would look good broken. Don't you just love it when your screw ups work out? Next, I mixed up a color that looked like raw wood, and sprayed some of that on. The idea here is that as the paint is wearing off, the area next to the paint will have the least weathered wood. After this step, I finished the details on the car. I left the car for about ten days while I did some other things. At this point, I had not yet tried the experiment with the Japan drier. I checked the model with a little mineral spirits to see if the paint was set. It seemed to be, so the next step was to paint the red oxide color on the car. You can see in the photo that I only painted the metal parts of the car. I sprayed the roof and underframe completely at this time. Now the car was starting to look like the paint had worn off, but still was not quite what I had in mind. Before this coat of paint set, I started brushing it off. To do this,



This was the first step painting the stock car. I sprayed the car with gray oil base paint concentrating on the wood parts of the car.



For step two of the paint job, I mixed up some color that looked like raw wood, and sprayed it around a little.



This is step three of the paint job. I have just sprayed the freight car red oxide color on. For this part, I concentrated on the metal parts of the car.

I used a moderately stiff brush that I dipped in clean mineral spirits. I dried the brush on a towel, and started removing paint. I rinsed the brush often to keep it clean. You will notice that the oxide red is coming off, and it's getting a nice feathered edge on it. I did a little at a time, and didn't concentrate on one area. There was plenty of time to work the paint. After doing this a bit, I decided I wanted more dark gray showing. To do that, I used some very dilute India ink as a wash. I used two brushes and kept some clean alcohol handy. I brushed the India ink on and immediately started washing it with clean alcohol causing it to bleed. Remember, alcohol will not dissolve oil paint so it is safe to put the India ink diluted with alcohol on the car at this point. For effect, I put a little white along the bottom board to look like the lime that the cars are sanitized with. The paint job was



These two photos are the result of washing the paint off the car. I also did the roof. Notice how the oxide red fades out to the wood and then the weathered gray wood.

almost done. The next step was the decals. If you look back at the C&NW photo, you will see that the lettering is still there, but the wood is bare around it. The white lettering paint makes the coating thicker, and the paint holds up better. In addition, the white paint reflects the sun better, and as a result, holds up better. You can see in the finished photo that some of the lettering appears to be on bare wood. This would not be possible unless I had put decals on the car and then painted it. The last step was to distress the lettering a little. After the decals were set well, I scratched them with the fiberglass scratch pen to wear them down a little. Decal ink is sometimes lacquer and you can dissolve them with lacquer thinner, but this usually just makes a streaking mess. I have tried both, and I like the scratching method better.



The finished car. I am happy with the result, and learned some things by trying this. I think the technique has some possibilities, and the more I work with it, the better it will get.

I was able to do some of this because I understood something about the materials I was working with. This is by no means the end all paint job. What's important is that I was able to make a plan at the beginning as to how I was going to try this. I could assess some of the problems, and create a work plan that would give me the results I was looking for. Some of the other options I discussed prior to starting the car also have some possibilities, and may work. If you would like to experiment, give them a try. I am a big proponent of knowing something about the materials you are working with. In addition, when you go to buy things, read the small print on the label to see what you are really getting.

I am running out of space here for this article, but for fun, let's go through the same exercise on another car. This time, we will look at an 1899 Pullman car from the C&NW. At first glance, the car looks like any other old freight car. When you enlarge the photo you start to see some things. The paint on the side and planks is very thin. You can actually see the knots and wood grain. Also, it looks as if the center panel has more paint on it. The black background of the logo can also be seen. The planks have saw marks from the band saw that was used to cut the lumber. Lastly, the truss rods and queen posts look like a darker color than the body. The master painters referred to in the first article of this series would to call this "blackening off" the iron work. So, how would we duplicate this? On a wood car, I think I would try making the wood grain by staining the wood first with a red ochre ink or analyne dye. The idea would be to stain the features of the wood grain as if you were painting them on. I think the wood grain shows because the paint was very thin, and it soaked in at different rates because of the wood grain orientation. When picking ink color, make it a little darker than the body color desired. I think the ink would be better than paint because it will not seal the wood grain for the next coat. In addition, the alcohol base stain will not be affected by the oil paint for the body. Then, I think I would try dampening the body by misting on some thinner. This may help draw the paint into the wood. Next, I would mix up some very thin paint, applying it very lightly. The knots and wood grain done with the stain should show through the paint. If the car were styrene or urethane, I might try lacquer paint very dry so it is somewhat absorbent for the wood color. Then, I would paint on some grain with lacquer. After that, I would come back with the very dilute body color of an enamel paint so it could be washed with mineral spirits like was done on the stock car. So, again, we can look at a paint job, and start coming up with ways we might be able to duplicate it because we have some basic knowledge about paint. I have a wood gondola like this that I am working on, and will give it a try. In the next issue, I will show you how it comes out. If anyone else has some ideas, try them, and send us the results.



This is an 1899 photo from the Pullman collection at the Smithsonian Museum. The photo is very sharp, and the paint is interesting when you enlarge the view.



In this enlargement, we can see the wood grain and the saw marks in the wood. This would be an interesting project to see how to duplicate the wood grain and the paint job.

JMRI for DCC Control

JMRI is to DCC as the Swiss Army Knife is to, well, the Swiss Army

By Dan Dawdy

When I started my current layout, I knew I wanted DCC control. I was on the NMRA DCC committee which helped to set the standards. Now, it was time for me to be able to try this out on my own. I bought an NCE 10 amp radio set up. (Please no Emails... I am not saying that NCE is or is not better than any other system, it's just what I decided on.) After hooking up the equipment, and attaching the wires to a yard track, I was ready.

The first thing I did was wire in a simple sound decoder in one of my engines. Two wires to the pickup, two to the motor, and two for the speaker. No lights for this test, I just wanted to play right now. Using the default address of 3, I was off and running on 12 feet of test track. Next, I wanted to set the address to match the engine number. Time to read the book. I needed a programming track, so I decided to use the the yard track for now.

- Press the **PROG** button four times to get to the programming track menu
- Press **ENTER** to use the programming track
- Press “1” to use Standard programming
- Press **ENTER** read the decoder version
- Press **ENTER** again to see the current address
- Press **ENTER** again to skip activating the short address
- Type in the number of the locomotive and press **ENTER**
- Press **1** to activate the Long Address

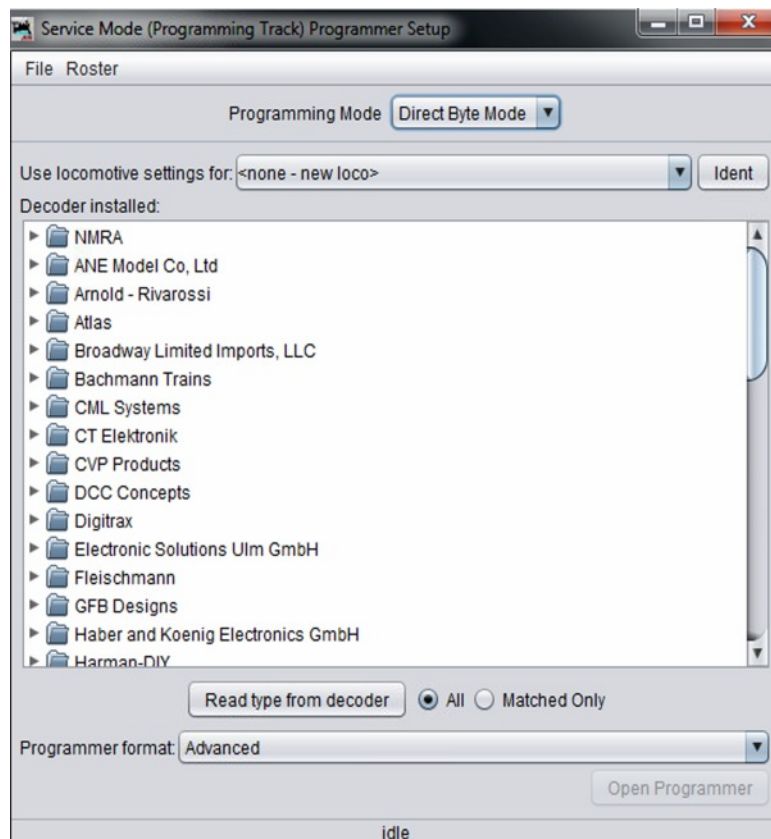
Ok, this wasn't so bad once I put my glasses on. The more I looked at the book, I more I was not liking what I was seeing. Then, I looked at the sound decoder book. There are thousands of CV changes. Sitting next to the layout pushing these small buttons on a handheld maybe 10 times to make a small change in the decoder, only to find out I need to make another change, and have to go through all of this again and again... no way! There had to be an easier way to do this. Enter [JMRI](http://jmri.org), short for Java Model Railroad Interface. A free open source program for the PC, Mac and Linux. Open source means that the code is free and open. Many people contribute to making it better, and fixing bugs as they arise. The program can do everything from simple programming of decoders to allowing you to control and run a layout over the Web from anywhere in the world.



Let's stick to basics here of simple decoder programming. Since each DCC brand will have a different hook up to the computer, I will not get into that here. The [documentation](#) is very good and lists all systems, and how things need to be set up. You don't need a high end computer to run JMRI, so it's a good use for an older XP laptop or something similar.

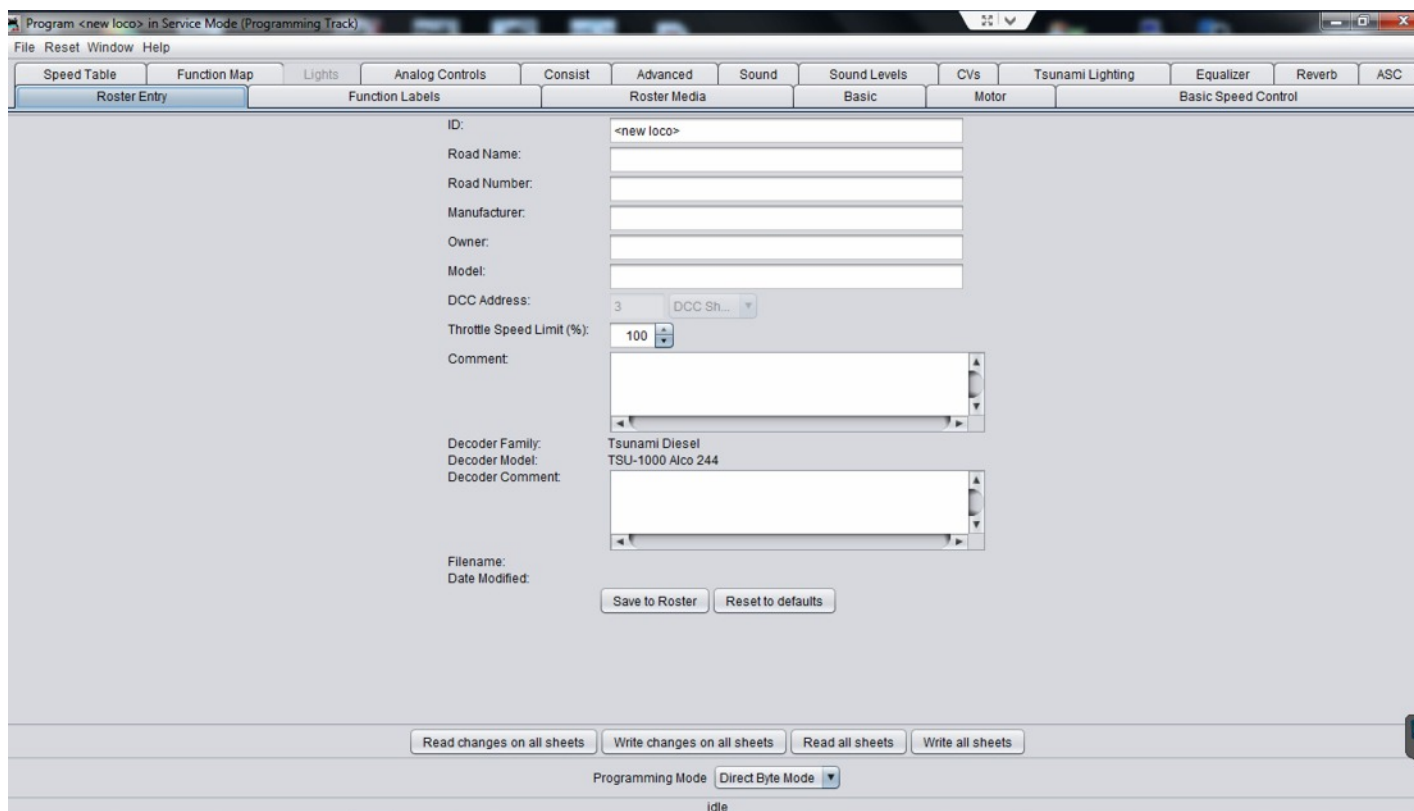
Once installed, double click on the Decoder Pro icon, and let's begin. On the left, is the Decoder Pro main opening window. There are many things going on here, but all we are interested in at this

point is programming. I will walk you through a new decoder, or a new new locomotive that came with a decoder from the factory. I am using a Soundtraxx Tsunami TSU-1000 ALCO 244 right out of its package. Place the locomotive on the programming track. Normally, I would install a new decoder, and then place the locomotive on the programming track. The programming track is always the first place we want to go because if the decoder is wired wrong, or there is some other problem with the locomotive, you will not damage the decoder. If you place the locomotive on the main and turn it on, any problem with your wiring or inside the unit will cause smoke. Trust me, that is not a good thing!



Select Service Mode (Programming Track) Programmer. The Programming Mode can stay at its default. (May be Paged Mode). Since this is a new locomotive, we'll leave the setting at none - new loco. You will see a partial list of possible decoders on left. For now, go all the way to the bottom of this window and change Programming format to Advanced. Now, click Read type from decoder.

JMRI will read the manufacturer ID and decoder family. It's doing nothing more than your handheld would be doing. As you can see, there are many possible decoders to choose from. You have to know what model you have. The manufacturer ID was set by the NMRA standards, but it's impossible for JMRI, or your handheld, to know which exact decoder is being used. I know this is a TSU ALCO 244, so I'll select that decoder, and then click Open Programmer on the bottom right of the panel.



The programmer is now open, and the Roster Entry tab is pre-selected. This will be the first page you fill in.

- ID: A number or name you want to reference this locomotive by. As you build your roster of locomotives, you want the ID to be something that's assigned only to this locomotive. All ID's must be different. I use the locomotive number and model.
- Road Name: Usually the road name on the locomotive. In my case, it's my own road, Richmond, Danville & Southern.
- Road Number: Usually the road number on the unit.
- Manufacturer: I use the model builder, but some striving for more realism use the the real builder name, such as ALCO or EMD.
- Owner: My railroad owns this. In a club setting, or if you have other operators, you may want to use name of the owner.
- Model: Usually the model of the locomotive.

The only really important item in the above list is the ID. Again, the ID has to be unique from any other locomotive.

The DCC address will normally be 3 as this is a new decoder, and that's the factory default. It's possible that some locomotive manufacturers may program a number other than 3. That button is grayed out anyway, so it does not really matter here. The Throttle Speed Limit may be left at 100 for now.

Any comment for the locomotive or the decoder can be added to their respective boxes. Maybe you want to put in the install date or the price paid. Any information can go in those boxes.

Program <new loco> in Service Mode (Programming Track)

File Reset Window Help

Speed Table Function Map Lights Analog Controls Consist Advanced Sound Sound Levels CVs Tsunami Lighting Equalizer Reverb ASC

Roster Entry Function Labels Roster Media Basic Motor Basic Speed Control

ID: 1214 - Alco PA

Road Name: Richmond, Danville & Southern

Road Number: 1214

Manufacturer: Central Locomotive Works

Owner: Richmond, Danville & Southern

Model: PA

DCC Address: 3 DCC Sh...

Throttle Speed Limit (%): 100

Comment:

Decoder Family: Tsunami Diesel

Decoder Model: TSU-1000 Alco 244

Decoder Comment:

Filename:

Date Modified: Oct 11, 2013 1:58:56 PM

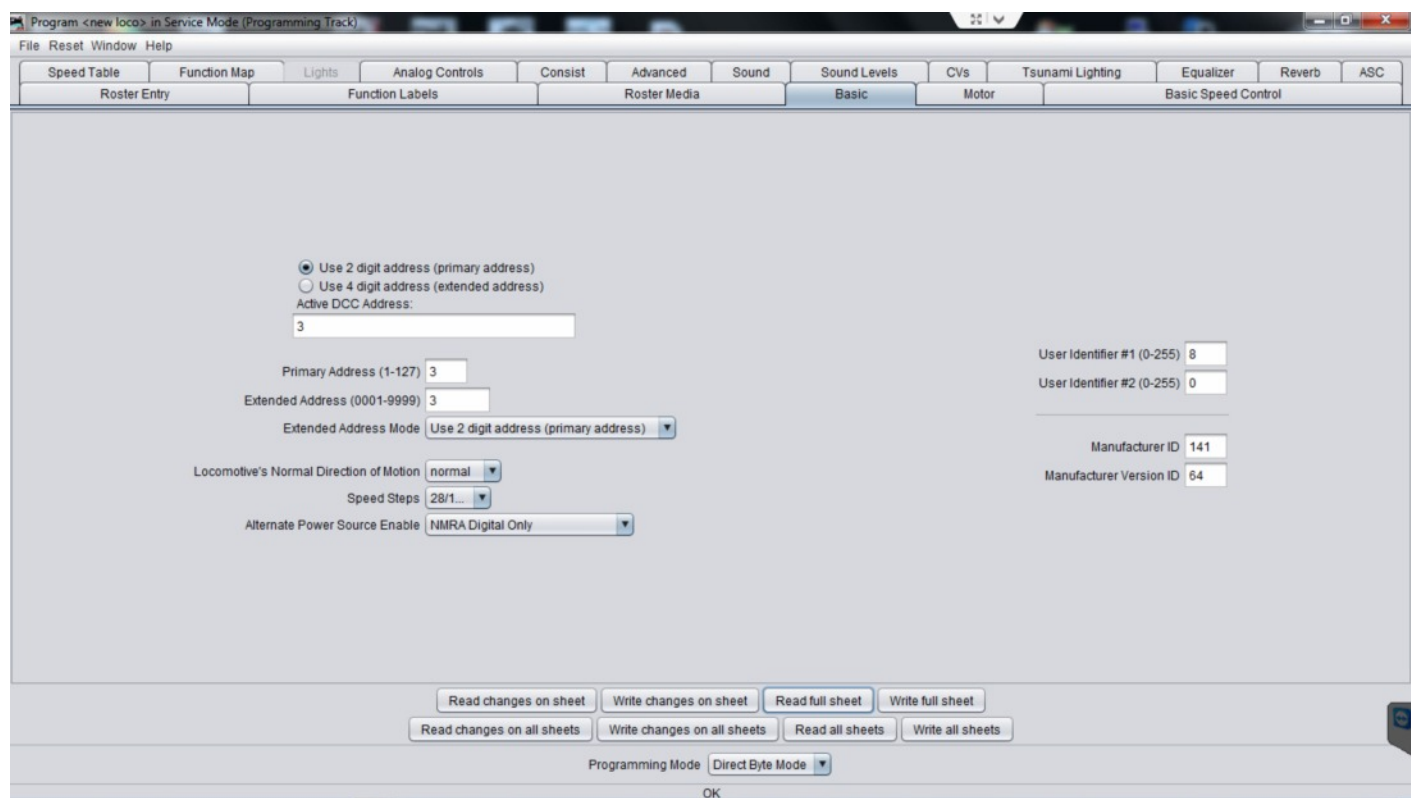
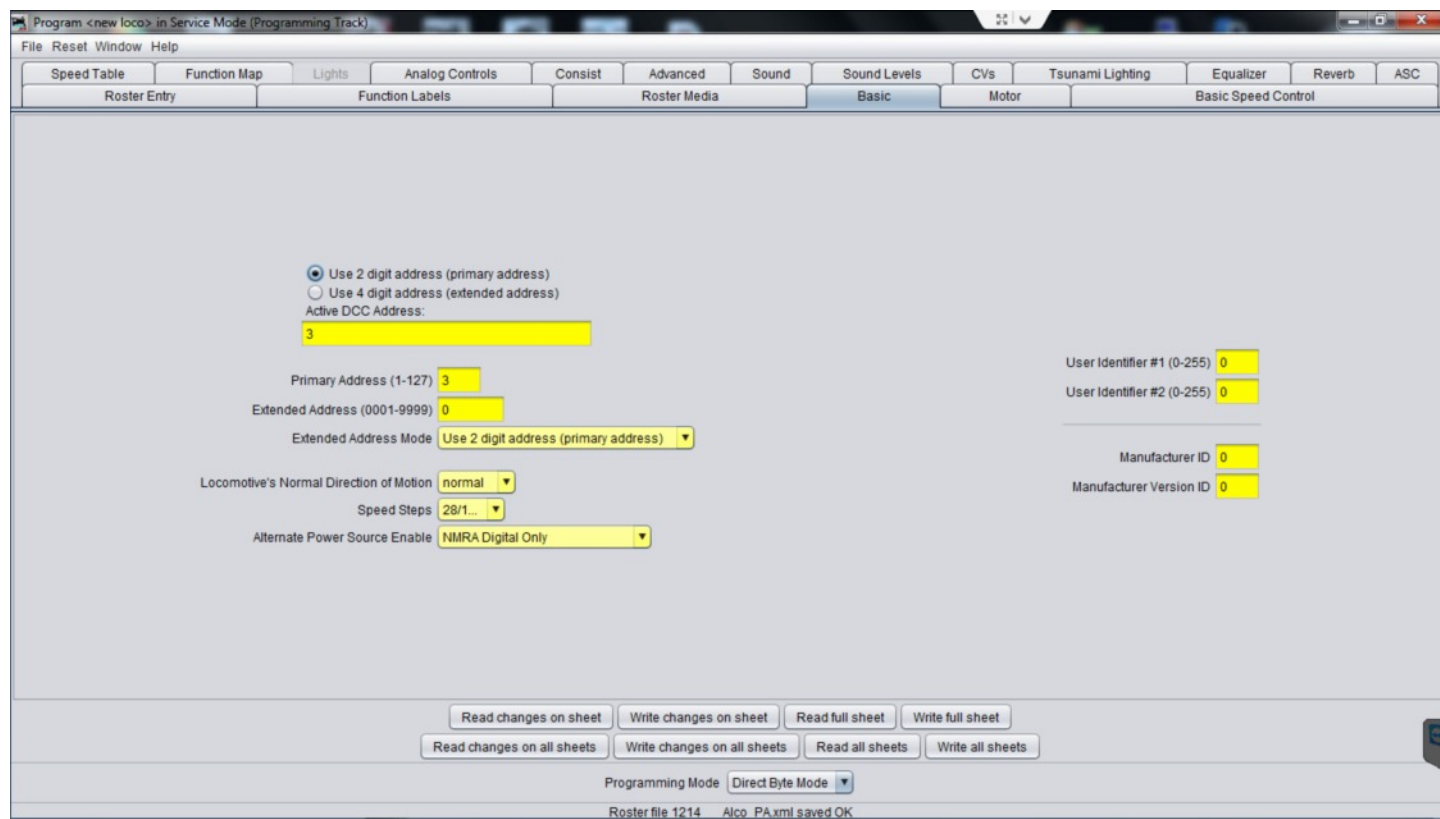
Save to Roster Reset to defaults

Read changes on all sheets Write changes on all sheets Read all sheets Write all sheets

Programming Mode Direct Byte Mode

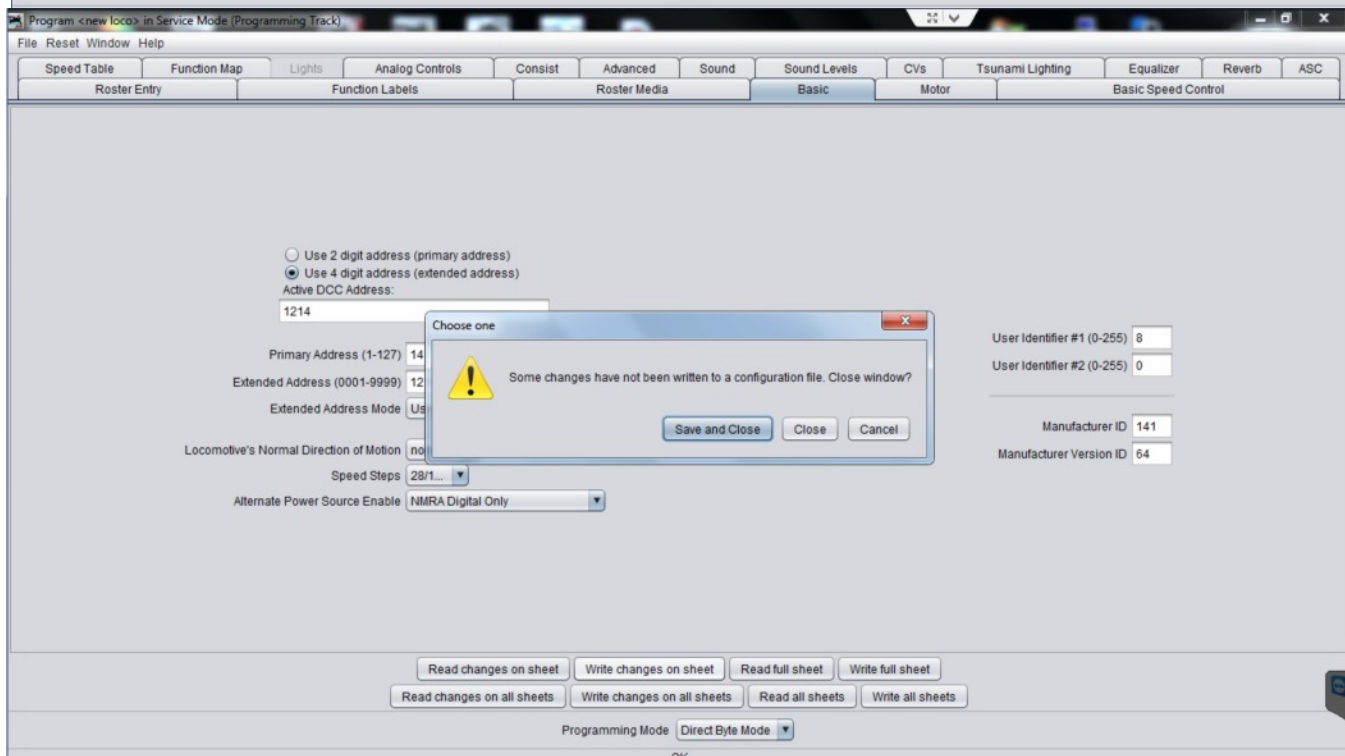
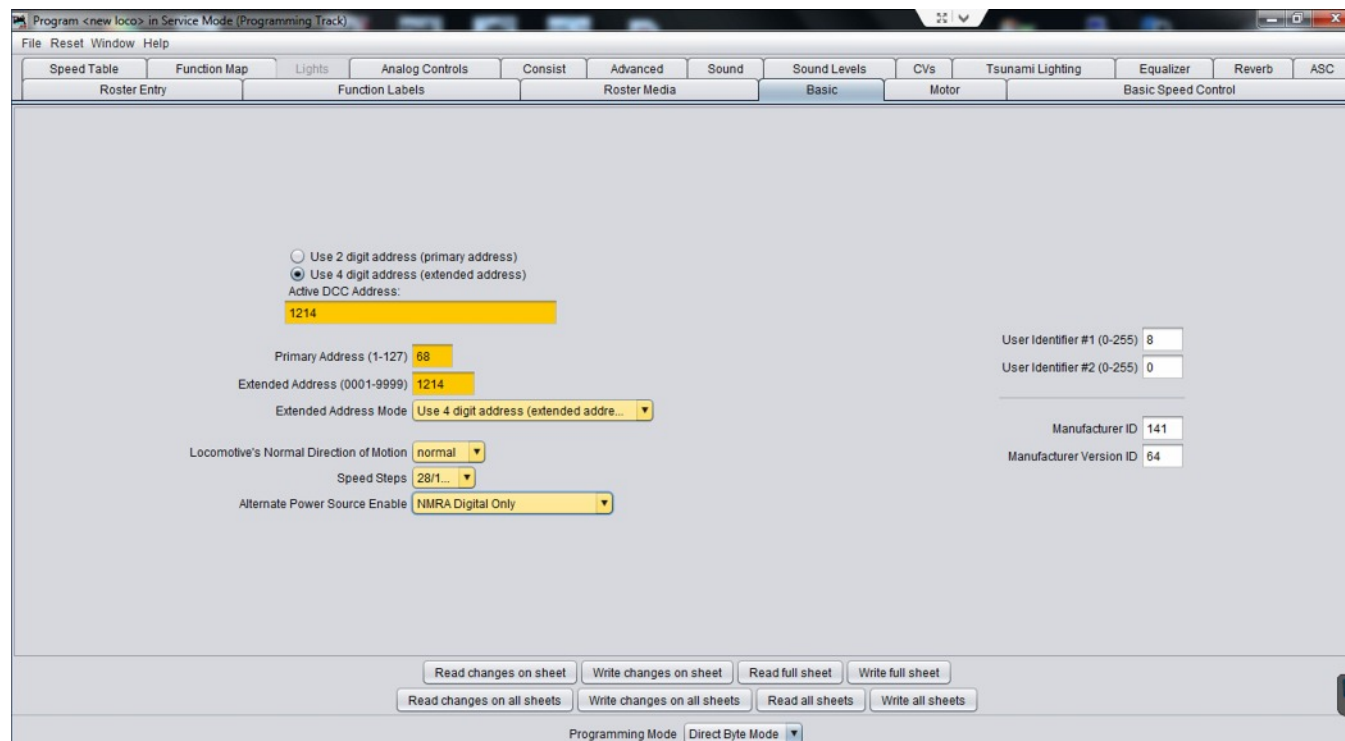
Roster file 1214 Alco_PA.xml saved OK

Next, select Save to Roster. Notice that after saving, the Date Modified will now display, as well as, the Roster file name at the bottom. The file was saved as 1214 ALCO PA which was the ID name. This ID cannot be used again because it would overwrite the original file. You could, however, use 1214 ALCO PA2 as another locomotive.



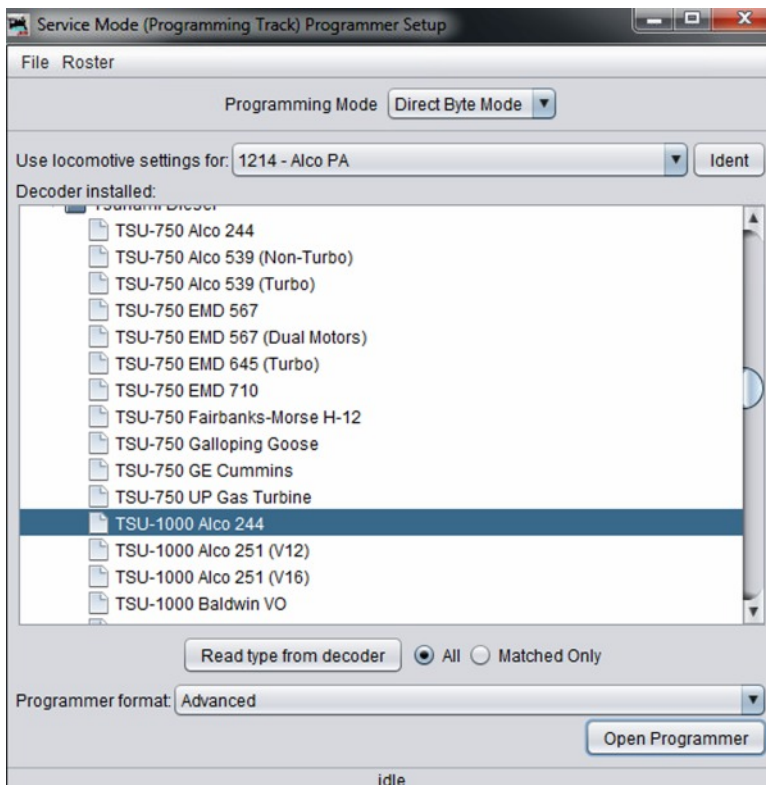
Now that this panel is saved, we can select the Basic panel. Notice of all the blanks are yellow. This indicates that JMRI believes this data to be accurate, but not confirmed. If you select Read full sheet, JMRI will poll the decoder, and bring in the proper data. The blanks now turn white because JMRI now knows the data to be true. We also see the Manufacturer ID and Manufacturer Version ID.

Now it's time to program. Since I want to use the locomotive number, I need to switch from 2 digit addressing to 4 digit addressing, so I will select 4 digit addressing. If your locomotive only has a 2 digit number, you could leave it; however, for reasons we'll get into down the road, I would suggest using 4 digit addressing. I add the locomotive number into the Active DCC Address box. It should then appear in the Extended Address box. The Primary address is not important at this point, so it can be left at the default.



Locomotive direction should be normal if it's wired correctly. If you later find that selecting forward on the handheld causes the locomotive to run backward, you can go back and change this setting. Or, you could also open the locomotive and fix the wiring, but changing the setting is a quicker solution. Speed steps should be set for 28/128. It's possible if you have an old decoder, the only option may be 14. Alternate Power Source Enable, in my opinion, should be set for NMRA Digital Only. I will never run my locomotives on DC, and there are reports that enabling the Alternate Power Source can cause run-a-ways. Notice that the new data values are in a dark yellow box. This means the the new vales have not been written into the decoder yet. Now, select Write Changes On Sheet causing the values to be written to the decoder. The boxes turn back to white or a known value. If you ever see red boxes after writing to a decoder, something went wrong, and the value was not written.

At this point we can close out this panel. It will ask you to Save and Close. The decoder was written with the new values, but the decoder will not update the file until you close. If, for some reason, you closed without saving, all is not lost. Simply open that locomotive ID (we'll get to that next), and do a complete Read All Sheets on the programming track. This will take a few minutes, but once finished, you will can then Save and Close. The locomotive can now be moved to the main. Select 1214 (or whatever you programmed) into your handheld, and away you go. Everything we just did could be done by using he handheld; however, it would take longer, not to mention there is a lot of room for error with all the button pushing. Also, let's say after running a few days you hit a short, and the decoder looses its memory. Yes, it can happen, not often, but it can, and probably will, at some time in your running life. With JMRI, you simply open that locomotive ID, place it on the programming track, and write all sheets. In less then a minute, all data is sent back to the decoder. We have only programmed in the address and a few other minor details, so doing that with the handheld would not be too bad, but think if you have the decoder really tweaked with hundreds of values. Do you want to go through all that again? I think not.



After closing the panel, you will see the opening decode panel again. This time, you can select not only a new Loco, but your our 1214 - ALCO PA is now an option. For now, close that panel so we can get back to the JMRI opening screen. This time, from the opening screen select Roster / Roster from the menu box.

File Edit Settings Actions NCE Window Help

+ New Loco Identify ? Help Unknown Programming Mode Direct Byte Mode

ID	DCC Address	Icon	Decoder Model	Road Name	Road Number	Manufacturer	Model	Owner	Date Modified
117 - Baldwin Q4b	117		D408SR V3.6	Richmond, Danville & South...	117	Westside	Q4b	Richmond, Danville & South...	Mar 10, 2013 5:15:48 ...
1214 - Alco PA	1214		TSU-1000 Alco 244	Richmond, Danville & South...	1214	Central Locomotive	PA	Richmond, Danville & South...	Oct 11, 2013 2:40:34 ...
17 - Caboose	1117		DH84FX	Richmond, Danville & South...	17	Halmark		Richmond, Danville & South...	Nov 2, 2012 4:33:43 PM
203 - Baldwin Z	203		D408SR V3.6	Richmond, Danville & South...	203	NJ International	Z	Richmond, Danville & South...	Mar 10, 2013 5:18:20 ...
204 - Baldwin Z (Sound)	204		TSU-1000 Heavy Steam	Richmond, Danville & South...	203			Richmond, Danville & South...	May 13, 2013 5:21:57 ...
300 - Baldwin R1	300		TSU-1000 Light Steam	Richmond, Danville & South...	300	Car Works	R1 2-...	Richmond, Danville & South...	May 13, 2013 5:23:25 ...
301 - Baldwin R1	301		TSU-1000 Light Steam	Richmond, Danville & South...	300	Car Works	R1 2-...	Richmond, Danville & South...	May 13, 2013 5:23:47 ...
416 - Alco S-2	416		TSU-AT1000 Alco 539 (Tur...	Richmond, Danville & South...	416	Gilmair	S-2	Richmond, Danville & South...	Apr 27, 2013 6:06:18 ...
4482 - Baldwin Q4b	4482		D408SR	Richmond, Danville & South...	4482	Westside	Q4b	Richmond, Danville & South...	Feb 28, 2013 4:04:31 ...
600 - Alco HH660	600		D408SR	Richmond, Danville & South...	600	Car Works	HH660	Richmond, Danville & South...	Mar 10, 2013 5:28:38 ...
601 - Alco HH660	601		D408SR	Richmond, Danville & South...	601	Car Works	HH660	Richmond, Danville & South...	Mar 10, 2013 5:28:54 ...
610 Alco PA	610		D408SR V3.6	Indiana Eastern	610	Central Locomotive	PB	Richmond, Danville & South...	Feb 28, 2013 7:01:37 ...
612 Alco PB	612		D408SR V3.6	Indiana Eastern	610	Central Locomotive	PB	Richmond, Danville & South...	Feb 28, 2013 7:01:35 ...
700 - Fairbanks H-20-44	700		D408SR V3.6	Richmond, Danville & South...	700	Car Works	H-20-...	Richmond, Danville & South...	Jul 20, 2013 2:56:12 PM
701 - Fairbanks H-20-44	701		D408SR V3.6	Richmond, Danville & South...	701	Car Works	H-20-...	Richmond, Danville & South...	Jul 20, 2013 2:56:10 PM
800 Momentum Consist	800		TSU-AT1000 Alco 539 (Tur...	Richmond, Danville & South...	800	Atlas	RS-1	Richmond, Danville & South...	May 12, 2013 4:33:58 ...
801 Momentum Consist	801		TSU-AT1000 Alco 539 (Tur...	Richmond, Danville & South...	801	Atlas	RS-1	Richmond, Danville & South...	May 12, 2013 4:34:03 ...
802 Momentum Consist	802		TSU-AT1000 Alco 539 (Tur...	Richmond, Danville & South...	802	Atlas	RS-1	Richmond, Danville & South...	May 11, 2013 5:24:24 ...
803 Momentum Consist	803		TSU-AT1000 Alco 539 (Tur...	Richmond, Danville & South...	803	Atlas	RS-1	Richmond, Danville & South...	May 12, 2013 4:34:00 ...
804 Momentum Consist	804		TSU-AT1000 Alco 539 (Tur...	Richmond, Danville & South...	804	Atlas	RS-1	Richmond, Danville & South...	May 11, 2013 5:26:13 ...
827 Alco RS-1 (Motor)	827		D408SR	Richmond, Danville & South...	827			Richmond, Danville & South...	Feb 15, 2013 11:29:59 ...
828 Alco RS-1 (Sound)	828		TSU-1000 Alco 244	Richmond, Danville & South...	828	NJ International	RS-1	Richmond, Danville & South...	Mar 25, 2013 6:17:50 ...
900 - Whitcomb	900		TSU-1000 Alco 244	Neville Mines	900	Thous and Island L...	45 Ton	Richmond, Danville & South...	Mar 8, 2013 3:43:41 PM
Albee CNW 1879	1879		TSU-1000 Medium Steam	C&NW	1879	S Helper	2-8-0	John Albee	Jun 19, 2013 1:27:03 ...
Model T Track Inspection ...	1114		MX621 version 28+	Richmond, Danville & South...	4	PSC	Model...	Richmond, Danville & South...	Mar 10, 2013 5:30:03 ...
MOW-1 Burro Crain	1		Z14SR	Richmond, Danville & South...	40	Overland		Richmond, Danville & South...	Mar 13, 2013 6:30:03 ...

ID: 1214 - Alco PA
Road Name: Richmond, Danville & Southern
Road Number: 1214
Manufacturer: Central Locomotive Works
Owner: Richmond, Danville & Southern
Model: PA
DCC Address: 1214
Decoder Family: Tsunami Diesel
Decoder Model: TSU-1000 Alco 244
Filename: 1214_Alco_PA.xml

☐ Programming Track
☒ Programming On Main
☐ EditOnly

Program

Labels & Media Throttle

Service Mode Programmer NCE is Online Operations Mode Programmer NCE is Online Programmer Status: idle

You now see your roster screen above. In my example, you will see all the items in my roster including the 1214 we just went through. If this was your first time, only your first locomotive would appear. The 1214 is selected, and you can read across the panel to see all the items programmed into it. Also, notice at the bottom of the panel, is all the information for that selected locomotive highlighted in white. You will also see another locomotive that does not belong to me. My friend, John Albee, has moved on to S Scale, and I was showing him how this worked by programming a locomotive for him. Since he now has JMRI, I can remove this listing. If, however, you were programing for friends, you may want to leave these for use again.

File Window Help

Roster Entry Basic Motor Basic Speed Control Speed Table Function Map

Lights Analog Controls Consist Advanced Sound Sound Levels CVs Tsunami Lighting Equalizer Reverb ASC

Master Volume Control 192

Airhorn Volume 225

Bell Volume 128

Engine Exhaust Volume 180

Dynamic Brake Volume 92

Radiator Fans Volume 140

Air Compressor Volume 100

Air Tank Poppet Valve Volume 80

Brake Squeal Volume 128

Brake Release Volume 64

Coupler Volume 128

Read changes on sheet Write changes on sheet Read full sheet Write full sheet

Read changes on all sheets Write changes on all sheets Read all sheets Write all sheets

idle

Notice on the bottom right, we can select Programming Track, Programming On The Main or Edit Only. Edit only will default if you are making changes without being connected to the layout. Since we have programmed and confirmed our new address, we cannot program on the main. This does not allow us to read back the Configuration valuables (CVs), only load them. You can only read back while programing on a programming track. As we tweak the locomotive, we really don't need to read back the data, only enter it. This also allows us to program "on the fly" so to speak. When you make a change, you will see/hear the results in real time. To do this, select Programming On Main by double clicking on the locomotive ID. The programmer will open to the roster page we worked with at the beginning. If you select the basic tab, you will see the information we programmed in earlier. Notice the data in again in yellow. This in because JMRI has not confirmed the data in this session. We know it should be correct, and you could do a Write Full Sheet if you wanted. (If you are not sure and have a problem, you will want to close out of this panel. Select Program on Main, and then read back the data.) For this demonstration, we know the information is correct.

I am not going into everything here as it would take hundreds of pages. JMRI's documentation is very good, and can be read and downloaded from the JMRI Website at <http://jmri.sourceforge.net/>, but I do want to give you an idea of how powerful the decoder end of JMRI is. Once again, you can do all of this from the handheld of your DCC system, but the question again is, why would you want to?

Let's explore a few other panels before I cut you loose to have your own fun. You may not have been working with a sound decoder, but bear with me for a minute as I open the Sound Levels tab. (Tabs will only display if your decoder uses them.) There are 11 settings here, and each setting has a CV value of between 0 and 255. That's a possible 2,816 CV settings for this panel alone. CVs, or configuration variables, are what the data is called. You may hear people say set CV 27 to 32. This is fine and dandy as JMRI will read back CVs by their number/value by selecting the CV tab. The beauty is we don't have to know any of that using JMRI, unless we really want to. (I don't care how my DVR works either. All I care about is when I pick up the remote, I can replay last week's NASCAR race.) OK, back to the panel. The Master Volume Control is set at 192. Turn on your locomotive and start it. Now, slide the Master Volume Control to 95, and select Write Changes On Sheet. All at once, in real time, the sound level drops. That's the power of programing on the main. Instant feedback! Now, play with the other settings one by one, and select Write Changes On Sheet after each change. Pretty cool, eh?

Now, for another example that many sound and non-sound users will want to play with. Let's select

Lights

Analog Controls

Consist

Advanced

Sound

Sound Levels

CVs

Tsunami Lighting

Equalizer

Reverb

ASC

Roster Entry

Basic

Motor

Basic Speed Control

Speed Table

Function Map

Use this sheet to determine which functions will control which outputs

Description	1	2	3	4	Air Horn	Bell	Dynamic	Short Horn	Fans(+)	Dimming	Mute	Comp(-)	Brakes	Coupler
Forward Headlight F0(F)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reverse Headlight F0(R)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function 10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Function 11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Function 12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Read changes on sheet

Write changes on sheet

Read full sheet

Write full sheet

Read changes on all sheets

Write changes on all sheets

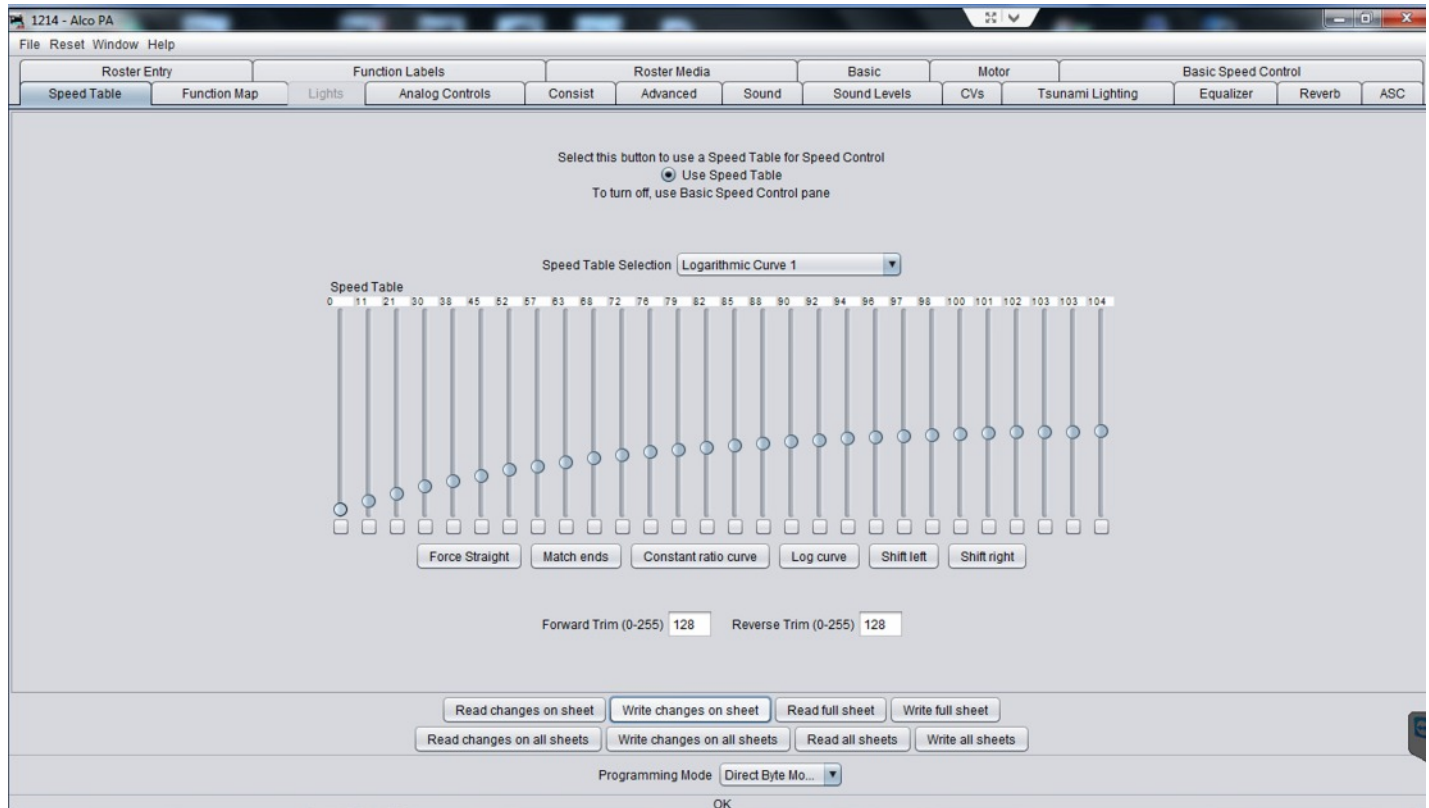
Read all sheets

Write all sheets

OK


Function Map. Not all decoders use the same function buttons programmed in the same way. The instructions that came with the decoder will show you what button does what. Here, we can see everything in a nice easy to understand graphical format. The checks are in the boxes that correspond to the function number on your handheld. Maybe, for some reason, you want this

locomotive braking to be function 7, as it's easier to use, but the dim headlights is currently function 7. Simply select function 11 for the dim, and remove the check from function 7 on dim. On the brake, deselect function 11 and check function 7. Write Changes on Sheet (or Full Sheet), and you have successfully changed the function number on your handheld.



Next, select Speed Table. Using a handheld to set up a speed table for locomotive matching, or a specific speed curve, is a big chore. This panel makes it much easier. Many people use this for better speed matching when running multiple locomotives together. Others use it so slow down the top end for more prototypical speeds.

In the example above you can see curve I used. It starts on the left at 0 and goes to 104 of 256. This type of curve will top out the high speed an just under half of what the locomotive is capable of. This this case I have tested and know that it will me a scale speed of 40 MPH is is tops allowed for my layout. You can imagine how lone it would take you to program and test just the speed curves using the handheld.

I have given you an overview of the power and features of the Decoder Pro side of the JMRI suite. It is by no means all encompassing, but will get you started in the right direction. I would suggest reading the documentation on the [JMRI Website](#). There is also a [Yahoo users group](#) with over 7000 members ready and willing to help answer any and all questions. In the next issue, we'll continue looking at JMRI, and some more features of the program. 

Postscript:

Next time, we'll look at how JMRI has the ability to allow you to run your locomotives without tethered throttles using a smart phone and/or tablet. Even if you have a radio DCC system, using older smart phones may be much less money than radio throttles.

Making Rocks

Part 2

By Glenn Guerra

The September-October issue of the O Scale Resource had an article highlighting some of the nice rock work Gary Engle did on his layout. We wanted to follow that up with a hands-on look at how Gary made his rock work. Gary lives about two hours from Dan, and offered to help Dan get started on some rock work. Dan is modeling a factitious railroad that would have crossed the Appalachian Mountains from Virginia to Tennessee. Some of the rock in this area is sedimentary rock that has been pushed up and forms shear cliffs. This type of rock tends to be softer and wears smooth. On Dan's railroad, the main line climbs along one of these cliffs to reach a tunnel at the summit before going through the mountain. This shear cliff provided a good scenery possibility since the tracks are up tight to the wall for clearance coming down the stairs. So, that is the reasoning (excuse) for the scenery. Let's see how it's done.

To start with, Dan looked at photos of the area he is modeling to get some feel for rock shapes, textures, and color. Then, he purchased some rock molds that looked like what he needed. For this area, the cliff has been there a while, so a mold with some smoother shapes looked like it would work.

The base scenery was made by dipping paper towels in plaster and draping them over a mesh of cardboard strips. This provided the basic shape of the cliff. Dan used Hydrocal for this base, as well as for the rock molds. I gave Dan a hand with the base, and boy did we



Gary is spraying the existing base plaster with water to prevent the existing base from absorbing the water out of the new plaster.

make a mess! I had plaster up to my elbows, and on my glasses. Dan was just as full of plaster as I was. Amy, Dan's wife, had a fit that we had good clothes on that were now full of plaster. All these years, I thought playing in mud and getting dirty was a good thing! After we had the base done, Gary came to the rescue.

Let me digress a bit here, and explain a little about plaster. Plaster sets as opposed to drying. When plaster is made, it is ground up to a fine powder and roasted. The roasting drives off some of the chemically combined water from the gypsum. When you add water to your plaster, a chemical reaction occurs recombining the water with the gypsum to turn it back into the original rock state. If there is not enough water in your mix, it will cause this reaction to be incomplete, resulting in poor strength. When you mix a batch of plaster and apply it to dry plaster, the dry plaster will absorb the water out of the fresh plaster causing the area of the joint to be short of water. As a result, the new plaster will not cure properly and be weak. This is why you need to wet your existing surface prior to applying new plaster. So, the first step is to spray the area with water to wet it down. The rubber molds were also moistened to help release the parts.

Correctly mixing the plaster is important. Gary told us to write down how much Hydrocal and how much water was used to make the mix. This was so that we would remember how much it took to fill the mold. Start by putting a known amount of cold water in a bowl. We had a cup and used five total. It doesn't mater what you use, just be sure to keep track. The reason for the cold water is that we are initiating a chemical reaction, and all



Gary pours the plaster mix on a mold and spreads it around to cover the mold. Keep track of how much water and plaster you used so you can mix another batch when using this mold in the future.



When mixing the plaster, start with cold water. Add plaster until the mixture is about the consistency of sour cream or mayonnaise. Don't beat the mix to death just stir it a few times.

chemical reactions generate heat. Also, the hotter the material is, the faster the reaction occurs, thus generating more heat. The reaction can easily get out of control. By using cold water, we are extending the time that we can work with the plaster. Always add the plaster to the water. The consistency should be that of sour cream or mayonnaise. Don't beat the plaster to death stirring it. The plaster will absorb the water as you mix. Wet the mold with a solution of water mixed with a little dish soap. The soap breaks the surface tension of the water, allowing it to cover the mold and not bead up. Now pour the plaster onto the mold and spread it around, letting it sit for a bit. The plaster will be shiny at first. When some of it



By mixing the plaster a little thick, it will stay on the mold. Note that there are areas that are losing the gloss. When this happens, the mold is ready to apply.

starts to turn dull, it is ready to be used.

The reason you keep track of the water you start with is to be able to mix another batch that will fill the mold. Note that the plaster is thick enough that it will not run out of the mold. At this point, there are two ways to proceed. Some people let the plaster get hard in the mold and then apply the rock casting to the base. Gary prefers to place the rock mold while the plaster is still wet. One of the advantages of this is that the mold will conform to the base. Something else to consider is that multiple applications of molds will be used to create an area. By applying the molds wet, it is easier to blend in the joints between the rocks. We will cover more of this later on, but for now, let's go back to the glob of plaster in the mold. Look at the plaster in your mold, and note that there is a gloss to some of it. As the plaster absorbs the water, the gloss will go away. As soon as this starts to happen, you need to apply the mold to the base. This was the part that



OK ready Dan? One, two, three, splat – and there it is! Note how the plaster is sticking to the mold as they are putting it up.



On the left Dan is holding the mold in place, while Gary smooths the edges a little. The wetter the plaster the easier it is to do this step. Note how the mold conformed to the base. They held the mold in place for less than a minute before the plaster was set enough to stay put. Now, leave the mold for about 10 minutes to set up the plaster before removing the mold.

Dan and I were apprehensive about. This mold looks big, and hard to handle. This was not the case though. Having the plaster mixed a little thick made it stick to the mold when picked up. For these big molds, Gary and Dan picked the mold up together, and carried it to the location. They both got under it and one, two, three, splat, it was part of the cliff. By now the plaster is starting to set, and you need to move quickly. Spread the mold out, and squish the plaster where you want it. Some of the plaster will settle to the bottom, so start your squishing at the bottom and work the plaster up. The wetter the plaster, the easier it will be to conform it to the base and squish it around under the mold. This is a bit of a balancing act. You want the plaster to be thick enough to stay in the mold when you handle it, but thin enough to work onto the base. After a few splats, you will start to get the idea. Hold the mold in place for a short time until it will stay by itself



After about ten minutes the plaster was set enough to remove the mold. At this point the plaster was still weak, and the edges could be broken off.



Well Glenn are you ready to take the picture? Note the masking tape on the outside of the mold, and that they don't have any plaster on that lower portion of the mold. Then, put it in place like before.



When the mold starts to get warm, the chemical reaction setting the plaster is going well. After about ten minutes, the plaster will be set enough to remove the mold. Gently peel the mold away. There are some under cuts in the mold, and it will want to stick in a few places. The rubber is strong enough that it will stretch and release. At this point, the edges will be rough so break them off, and carve away the rest of the edges

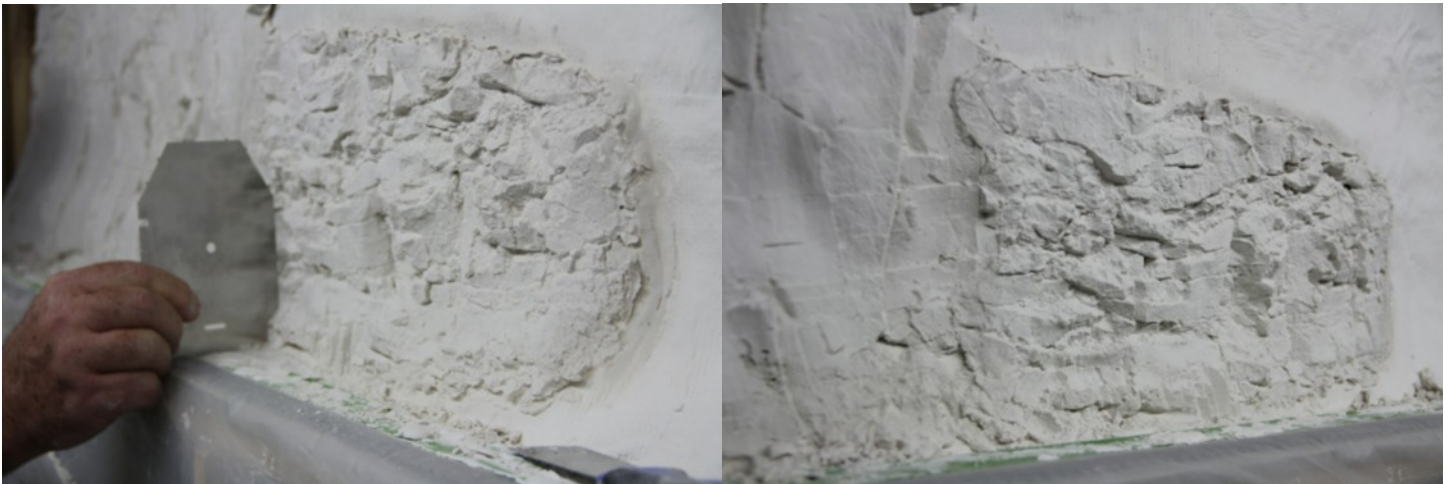
Here, you can see the two mold applications. Gary is breaking off the loose plaster at the joint. The plaster is soft at this point allowing it to be worked with your fingers and a chisel.

blending in the rock. Gary used a knife, and also likes to use wood chisels to carve the soft plaster. Being a wood worker, I cringed at that, but it doesn't damage the chisel. Plus, I know how to sharpen them.

Now that we had one rock in place, it was time to do another. We decided to use the same mold. This is why Gary likes the wet application method. There was a fissure in the mold that was a prominent feature of the rock. We wanted to keep that fissure going in the cliff, so we decided to line the mold up to keep the fissure going. In addition, we would not be using the whole mold, and did not need the lower 4" of the mold. Gary marks the mold on the outside with masking tape to show where the plaster goes. This time, when mixing the plaster, we made a little less



The cliff was close to the tracks at this location, and we decided the railroad had to remove some of the rock. Dan used a different mold with fractured rock to get the desired effect.



After removing the mold, we checked the clearance right away, and found it to be a little tight. Gary cut some of the plaster away with a knife. If you look just in front of the gauge, you can see some of the cuts, but they blend right in. Look how well the two different molds blended together in the photo on the right.

than before since we were only filling part of the mold. (Dan, you did write down what your mix was, didn't you?) Wet the base and the mold as was done previously. Use the masking tape guide to position the mold, and flop the mold into place. Squish it around a little, and then let it sit. Even though we are using the same mold, by squishing it around, the shape changes and makes the repetition in the pattern less conspicuous. When removing the mold, break off the loose edges like before. This is where Gary likes to use a chisel. At first, you will be able to see the two molds, but as soon as you start to work the edges, the joint will disappear.

In the next area, there was a bulge in the cliff where it went around the water pipe and got very close to the track. At this point, we thought that the railroad would have removed some rock, so there would be fractured rock as opposed to the weathered rock on the rest of the cliff. Dan got out a different mold with a lot of fractured rock, and we used that. In the photos, you can see that there is a lot of difference in the two molds. Gary's method of putting the mold up wet really paid off here. After removing the rubber, we checked the

clearance right away, and found that we were a little tight. Gary got out a knife and cut some of the plaster away while it was still soft. The cut away portion blends in so well, you have to look for it to see it.

Dan and I had never done this before, and the fact that it was so simple was a real eye opener. The big molds turned out to be easier to handle than we thought. If this is something you want to try, think about what you are trying to create, and get a few molds. The wet application method has some real advantages when it comes to blending different molds together and forming contours. Don't just butt the molds, overlap them, turning the molds to get what you want. Also, don't get hung up on every little detail in the rocks. Step back and look the whole scene over. It will all blend in. My friend, Norm, would always tell me when we were doing wood work, "from the back of a galloping horse it will look just fine".

So, after the plaster part, comes the painting. Gary likes to use acrylic paints. The paint can be thinned with water to work it into the features of the rock, and when dry, it will be permanent. When painting the rocks, Gary likes to put a base



Gary uses an old baking tin as a palette for mixing paint. Make up a very thin wash of your base color.



Here, Gary is applying the base color wash to the rock. Note that around the edge of the rock, the paint is not taking well. This is because the plaster was touched up, and will not absorb paint the same as the molded rock.

coat on, letting it dry before doing the details. Because we were pressed for time, we did it all at once. We still had some good results to show for this article, but there were some disadvantages which we will discuss later in this article.

Let's start with the base coat. To practice painting, Dan had a sample rock mold he put up a few days prior. The plaster needs to be completely set before you start painting. Look closely at the edges. Gary cautioned against touching up your rocks with thin plaster. The thin plaster will become sealed, and will not soak up



Here, Gary is putting some highlight colors on. The stiff brush is wet so the paint will flow off the brush and into the features of the rock.

onto the rocks. It will soak into the plaster as you are going. At this point, looks are not critical, just mop it on. You can already see that some of the features of the rock are starting to come out. Let this dry. When you put the highlights in, you will be washing again. If the base is still wet, the base colors will tend to mix with the highlights.

Next comes the highlights. Gary used a small, stiff brush. Use the palette to mix your colors again. The paint needs to be thin enough to come off the brush, and flow into the features of the rock. Just stab, poke, and brush where you think you would like to highlight. Recesses in the rocks tend to be dark. Some areas will collect dirt making them darker. Shadows also need to

the paint well. You can see this around the edges in the photos of the finished rock, and it will make the rocks splotchy. The first step is to mix your base color. Gary likes to use an old baking tin as a palette. In this case, we used some raw umber and some burnt umber. Put a dab of each color on one side of the baking tin, and tip it up. Next, Gary adds some water to the tin. He then picks up a little of the color on a wide brush, and starts mixing it in the water. You want a very thin paint mix, almost like a stain. This becomes the base color of your rocks. Wash this on your rocks using a wide brush. Going thin with the paint cannot be stressed enough here. You can always go darker, but it is not possible to go much lighter. You will want this first coat to dry. We did it all one after another. It worked, but it works better to let the first coat dry. Brush the base color wash liberally



In this photo, Gary is washing the accent colors to soften the edges and bleed the color into the features of the rocks. Use a wide brush and water for this step.



Gary is shown here dry brushing some accents into the rock.

be accented. Again, don't agonize over every detail, just get the paint on. It will look fine. Now, before the paint dries, wash the area again with some water. This will thin the paint you just put on, and it will bleed into the features of the rocks. The washing will also soften the contrast of the colors and blend them. On our sample, the base color was still a little wet, causing the second wash to mix the colors. This can work, but you will have better control by letting the first coat set. The features of the rock are now starting to show up better, and more colors have been added to the rock. The color divisions are subdued though, and the rock needs some accents.

Here is the finished rock. We tried a little India Ink to see if we could create a spring coming out of the rock. You can see how each step affected the look of the rock.

To add more highlights, Gary dry brushed some color on. Dry brushing means that your brush has paint in it, but there is so little paint, it will not flow off the brush. The paint will stick to what you touch with the brush. This technique works well for highlighting the tops of the front surfaces of the rocks. The paint will not bleed into the cracks or features of the rock. Squeeze your brush in a paper towel to get the dry brush, and touch the highlights you want with the brush. If the highlights are too sharp, you can wash them with a clean brush and water to remove or soften them.



This was fun, and we really appreciated Gary coming and showing us his techniques. After a few hours, we had all the information and photos we needed for the article, so we retired to Dan's porch. Dan fired up his pipe, and we all gabbed for a bit before I shoved off for home. This is not as difficult as it seems. In future issues, we will show some of Dan's progress. It was another good day spent enjoying the hobby. Thanks for the help, Gary.



After Gary and Glenn left, I realized I was going to need a lot more Hydrocal. The large molds used about 12 cups! This 300 pounds should last for a while. DD



Howard Brothers Feed & Grain Complex

The Howard Brothers have been in the grain business for decades storing and shipping the local farmers' crops. They recently added a feed sales to their elevator complex to hopefully kick up the profits. The elevator can be build with or without the horizontal bands. The bands are usually seen on a studded versions of the elevators.

This complex is laser cut and engineered for easy construction. Other features include positionable doors & window sashes and removable roofs. Naturally, an ample supply of brass and white metal detail castings, including workers, are included. See more photos on our web site. This kit consists of laser-cut basswood, plywood, and cardstock. The footprint is a scale 180' x 100'; overall height is a scale 82 feet.

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By Glenn Guerra

The Indianapolis O Scale show was September 20 and 21, 2013. After the summer distractions from modeling, it's good to get to these fall shows. The Indy show is one of the first fall shows, followed by shows in Ft. Worth, Texas, Cleveland, Ohio, and Strasburg, Pennsylvania. I enjoy the shows, and the people I only see at the shows. There is also a lot of good information shared at these shows. This year, I stayed at the hotel where the show was held, and it was relaxing not to have to chase around. I traveled to the show on Thursday and did some railfanning, as well as, wandering on back roads. Not only does it clear my head, but I get to see a lot of nifty old things in small towns. I arrived about 4:00 PM local time, and after checking in, headed for the lounge. Mike Hill, Pat Muccci, and Tom Shore were having a chat so I sat down and joined them. Harmon Monk and his wife Marie came by, and Pat and I joined them for dinner. After dinner, I unloaded the car, and quit for the day. The next morning, I set up Mullet River Model Works and a computer to show the O Scale Resource magazine to people. Dan showed up, and started taking photos for us. Dan took photos of the contest models and winners which are covered in a separate article. Friday evening, Pat, Ted Schnepf, Dave Thorton and I had dinner. Saturday was not as busy, and I had a chance to look around. It was an enjoyable show. Here are some photos from the show.



There was plenty to see at the show this year again.



A group of model railroaders in Indianapolis are building a small display layout. The layout is built to P:48 track standards. There are HO scale modelers, OW-5 modelers and 3 railers all pitching in. We look forward to seeing the layout progress, and will pass any information along to the readers.



John Pautz of American Switch and Signal did the track work shown here using his cast switch parts. The tie plates are Grandt Line. This should look real good with the ballast.



Brian Marsh from Overland Models was there, and had a few of the latest models for sale. These SD70 models are well detailed and painted in all the different paint schemes.

Merlyn Lauber of Caboose Stop Hobbies in Iowa had this San Juan Car Company Van Dyne tank car on display. These cars are associated with the Rio Grande narrow gauge, but they started life as standard gauge cars. During the change over to diesel power, the railroads used them to hold fuel at terminals for the new locomotives. Looks like a nice model.

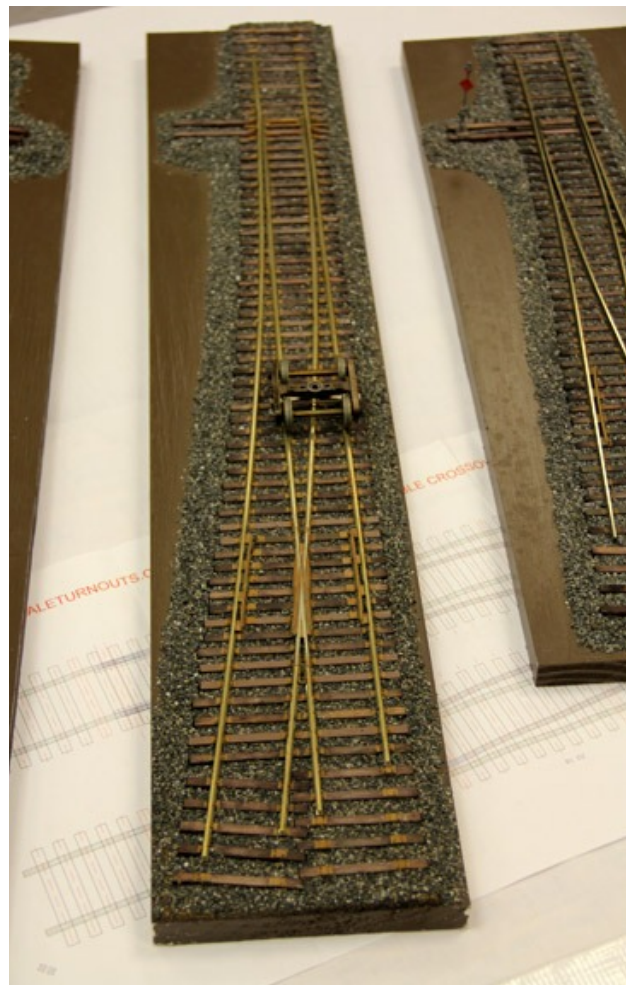


There were lots of brass models to see. Most of these are out of production. The shows are always full of these kinds of things. No wondering about the model without seeing it.



American Scale models was showing their brass water columns. These water columns would look good at any terminal, or even by a depot.

Oscale Turnouts was at the show displaying their new line of turnouts. These turnouts use a cast frog for detail. The turnouts are pre-gauged and assembled. The modeler needs to mount them on ties, and spike them down. Custom built turnouts are also available. These turnouts will be a welcome addition to the hobby.



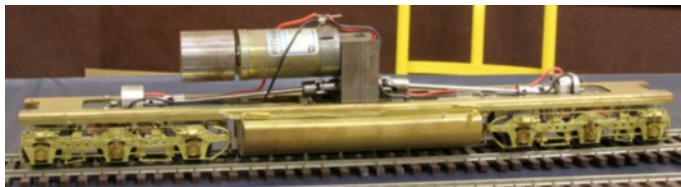
Pat Mucci from P&D Hobbies was there with an extensive line of detail parts, decals, and power units.



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JD's Trains from Florida was at the show. They carry only O Scale items in both scale and 3 rail. In addition, they have an extensive line of special run paint schemes.



Midwest Model Works was showing the repower units they produce. This unit is a rugged dependable drive for heavy service, and gives smooth performance.



Norm Hinkle (behind the counter) and Jeff Lange having a chat. Jeff had his layout open for the layout tour. Jeff and Norm are both from the Indianapolis area, and participate in regular get togethers with other modelers in the area.



Rails Unlimited was showing one of their latest urethane kits at the show.



George Kohs was displaying some of the Union Pacific Challengers he is importing. The detail on Kohs models is some of the best there is.



Depressed Center Flat Car



Designed to carry heavy and/or tall loads, the 40', 90-ton depressed-center flatcar is a unique car that will attract attention. Railroads ordered the castings and built their own cars, so details varied. At least the NH, C&NW, Southern, and NYC had these cars. The unpainted kit consists of high-quality urethane castings for the body, and brass & urethane brake components under both ends of the car. Easy assembly with ACC or epoxy. Less decals, trucks, and couplers.

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INDIANAPOLIS 2013 CONTEST PHOTOS

Although few in number, the contest entries were very well done and great examples of modeling skills. Congratulations to the following winners in each category.



Bruce Grundy
Best in Show
First Place Locomotive
C&O Gas Electric with Trailer

Bruce Grundy receives his best in show award
from Kim Ryker



Bob Schultz
First Place Passenger



Bob Schultz
First Place Freight Car

Bob Schultz show off his first
place award for freight cars



David Friedlander
First Place Diesel

John Russell
First Place Caboose



John Russell with his first place
award for his Caboose.



Norm Hinkle
First Place Trolley

Norm Hinkle receives his first place
Award for his trolley from Kim Ryker



Here are some of the other contest entries.



David Friedlander




Bill Hirsch




Bill Hirsch



Jack Kincaid









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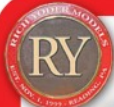
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I DON'T WANNA GROW UP

By Dan Dawdy

Something has been bugging me for a long time, and I just did not know how to put it into words. I will attempt to do so in this article about imagination, and the differences between children and adults when it comes to imagination.

When I was child, we had a large Lionel set up that was over 800 square feet. There was a lower dogbone, an upper loop and two yards. Two ZW transformers allowed these to be run independently. Pretty fancy for 1963. Back then, I did not understand the concept of operations per se, but I did know that trains came into a yard, were broken apart, reassembled, and sent on their way again.

My friend, David, had a large collection of Corgi cars and trucks, while I had the “poor kids” version called Dinkys. We built buildings out of cardboard, and used Walthers printed brick and window paper to finish off our masterpieces incorporating them into the layout. The trains were running, I was pretending to be Amos Burke from the Burke's Law TV show, while David was Illya Kuryakin from The Man From Uncle. You can see where this is going. We had fun, we made up stories and plot lines. We talked to ourselves and made car noises. No two days were the same.

When I wanted to add on more track, my dad called the lumber yard and had a 4 x 8 sheet of plywood and some 2 x 4s sent out. Then, David and I got to work adding on as we saw fit. I also built many models from Revell, Monogram and Aurora. I didn't really look at the instructions, I just tore right into them. It should be noted that when I was finished, I had used most all the parts and a little Testors paint from the tiny square bottle in the kit. My creation was finished, and placed on the layout.

Now flash forward 20 years when I got back into model railroading and, in specific, two rail O scale. I bought a Walthers waffle-sided boxcar. Not a hard kit, but things did not go right. I knew how it should have looked, but my modeling abilities were not as good as I remembered, especially when it came to painting. It had to be perfect. When I joined a modular group and begin building wood kits, they had to be perfect. I started to over analyze things when it came to simple ground cover. I had to have castings for small parts like chairs and all the many detail parts. Then I started to visit and operate at other layouts of all scales. I learned a lot, but it seemed like operating was more like work than fun. I wondered to myself “What's going on here?”. If my wife came down the basement and saw me pushing a 1/48 police car down the road while making a siren sound, she probably would have slowly backed up the stairs, grabbed the kids and left the house. It was then I realized I had grown up, and in the process, lost something very important. Yes, my imagination was gone!



I thought about this for a long time. When I started my current layout a few years ago, I again began to build buildings from kits, and of course, finish the interiors. I wanted lights and small details, anything to make people stop and look inside. As many of you know, there some things (actually many things) that there are no ready made commercial castings for. I needed to make items using stuff I had laying around, re-purpose existing pieces, and use them in unconventional or different ways. I needed to step back and

really think about what I wanted to accomplish. I started wandering aimlessly down the isles of Hobby Lobby and JoAnn's looking at things and trying to see them in a different way. Slowly some ideas started coming to me, some silly and some not. The more items I needed for a building, the more I had to make them. One nice thing about doing interiors is that things don't have to be super detailed.

My pipe shop is a good example. You see a wall of pipes in the display case. Looks convincing right? Your brain sees something that looks like a display case and fills in the details. I had many people ask where I got all the pipes and the sliding glass doors. It's an illusion, which I will say does have one draw back, it's looks better in person than in a photograph. When you look at a photograph of the scene, you have time to really study it causing some of the illusion to disappear.

In the cigar store there some commercial castings, but the majority are just bits of wood and plastic assembled creatively to make them look real.



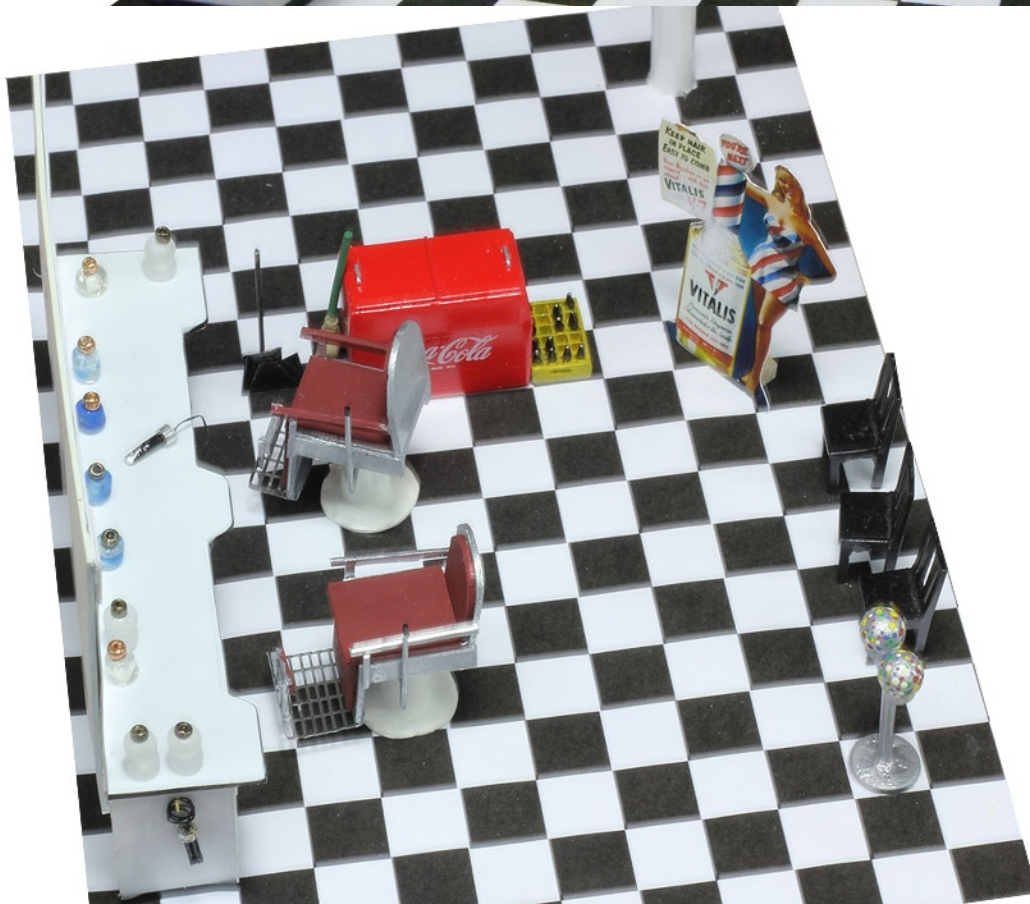
The pipes in the display case are just a picture of old pipes I found on the Internet, imported into Photoshop, turned and shadowed to look more real. The jars of tobacco are different beads glued together. The cigar boxes

were again found on the Internet, reduced in Photoshop then folded. The display cases are nothing more than scraps of wood from my stash. It all works.

The barber shop on my layout is pretty much the same thing. Three commercial castings were used, and the rest of the details seem to fall in place. OK, the barber chair did take awhile to come up with. A member of a forum had done something similar, and sent me a few pictures of a real chair he modeled from. That took some thought, but again everything came out of the existing items I had laying around or the scrap box.



Derek's Barber Shop took some thought. Other than the Coke machine, gumball machine and the three black waiting chairs on the right, everything else was scratch built with "stuff" I had in my scrap box.



The table is styrene wrapped around scrap wood to make the boxes. The edge is lined with black drafting tape. The barber chairs are styrene and Plastruct tubing I melted to form the base. The flooring is just a printed sheet of heavy paper from the color printer, and the Vitalis ad was taken from the Internet, sized, printed, cut out and placed on a stand.



When viewing this from the outside everything just seems to flow together. Are the details 100% perfect? No, but your mind sees what is there, and fills in the rest of the details.

Lighting and signage go a long way in making things look real. The barber sign was a design I found on the Web on an antique site. I simply copied the logo, and built the rest out of an old cut up glue stick and other tubing. I added an LED inside, and it was finished.





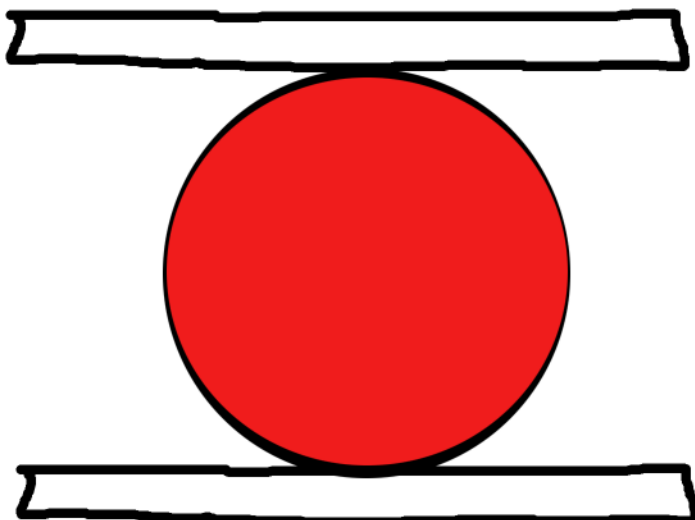
I have to admit, sometimes commercial castings do come in handy. Even so, the wood floor, rug, medicine cabinet, light switch and wallpaper complement the commercial castings very well as does a touch of weathering.



These barrels came in a package from Hobby Lobby. 10 for a buck as I remember. A few hits with an Exacto knife and some stain make for some nice barrels on the cheap.

So, you may be asking yourself, “What’s the point of all this?”. The point is use your imagination! Don’t let yourself be tied down looking at things in black and white. Get creative. You can’t be creative without using your imagination. The two are explicitly tied together. Don’t be afraid to try new techniques, don’t over analyze and think that your way is not as good as someone else’s way. It doesn’t matter. The point is to enjoy what you are doing.

Another problem can be Internet overload. Ask a simple question like “What’s the best weathering technique?” in a forum and fights begin to break out. Go to YouTube and check out all the videos. Your head will start spinning. There is no right way or wrong way in many cases. Looking at books, the Internet and forums will give you ideas from some very good creative people. There’s that word again, creative, and you can’t be creative without what? Yep, imagination. 🌴



Postscript:

While thinking about all of this, I saw a television show on the Science Channel that really made me think. Try the experiment below.

What do you see in the picture below? Name anything that comes to mind. What does it represent to you? Probably not much.

Now, take this same picture and show it a group of young children, say 5 to 8 years of age, and see what they come up with. Guess who has imagination and who doesn’t!

Dream City Railway

Roy James' Christmas Season Inspired Layout



By Glenn Guerra

Roy James from England sent us some photos of his dream layout. This layout was inspired by the display layouts that were so common in stores during the Christmas shopping season. When I was little, I remember going to the Sears store in Elgin, Illinois with my mom. I hated the shopping, but could not wait to see the Lionel train layout in the store. Many of us have had the same experience. So, with the Christmas season approaching, let's relive some of that while Roy tells us about his layout.

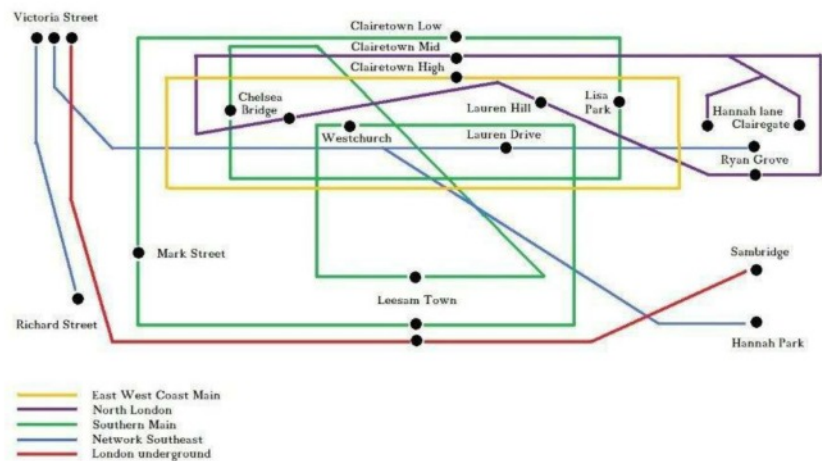
By Roy James

First off, I must explain that O scale in the UK is 1/43 scale which is 7mm to the foot. Dream City Railway has taken me roughly 16 years to build and reach the present stage. It is a culmination of many layouts over the years. The name of the railway relates to when I lived in North London in the 1940s, following the Second World War. I used to walk by a toyshop on the corner of Wightman Road Hornsey with those Hornby clockwork models on show that I could not afford to buy; hence, at that time, it would have been a dream for me to even consider, let alone end up with a railway like I now possess, hence the name. I was originally inspired by those magnificent railways that were regularly on show in the London department stores over the Christmas period. Gamage's and Selfridges, to name but two. Like many others, my first ever train set was a

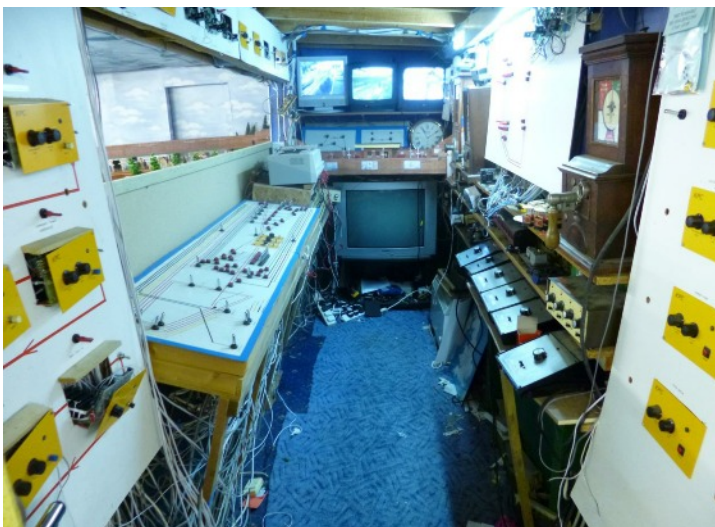


An English Public House. Roy owned one of these at one time. When a "Pub was a Pub" as he put it.

The Dream City Railway is based loosely on London's railways, and consists of various lines represented as running in and around London. I say this because if the stock run was strictly in accordance with the prototype, then this could be too similar with the amount of trains being operated. So licence is used, especially for the rolling stock, to display various liveries over a 50 year period from around nationalization to privatization. British Railways was nationalized in 1948, and was formed into four regions. The 17 stations at present are named after my grandchildren. Dream City Railway runs through 5 interconnected sheds.



Dream City Railway is 30 feet x 50 feet, covering an area of 1500 square feet. 30 full length trains run simultaneously through 17 stations. These 17 stations have a total of 52 platforms; together they would stretch for over 500 feet. The basic track diagram is shown above.



The central control room where Roy can run up to 30 trains at one time.

The railway attempts to display most of the popular classes of both diesel and steam locomotives seen on British Railways in this 50 year period. London was well represented by the four main regions which operated services all over the British Isles. Therefore, one can actually train spot engine numbers on this railway.

The whole system is operated from a central control room with the aid of closed circuit television monitors. This allows 30 trains to be operated simultaneously by one person (me). Over 100 amps, at between 12 and 20 volts, are required to power the track. A combination of Maplin Bench power units, Helmsman and Gaugemaster Transformers are used. The buildings have their own individual transformers.

If you visualise, the whole track is divided into separate block sections. Each section then has further controls that allow the speed of the incoming train to be controlled. The acceleration and deceleration can be adjusted and pre-set, the time the train stops at any station is individually adjusted and preset. The units initially used were manufactured by Kent Panel Controls, unfortunately after the untimely death of Julian Holland, the firm closed. I am now gradually replacing the units as they fail with Heathcote electronic circuit boards. The whole system is fitted with scratch built working color light signals. The points are worked by standard Peco solenoids. The railway is a walk around format, and viewing on the North side is by hatches in the side walls. The railway has interconnected lines on four levels. There is over two thousand feet of



The Home of Dream City Railway (South Shed)



A central view with Leesam Town station to the right below.

this railway that is unusual in the fact that it is fully built up, rather than scenic hills etc. It is fully populated with thousands of people imported from China. To see 30 full length O gauge trains running together at the same time is really not only unusual, but a sight to be seen, together with the imagination of the viewer. But, as it is a private railway, if you wish to see it in action, there are various videos on YouTube which show these trains in action around the layout, along with with cab views as well. Occasionally, members of various clubs are invited round for viewing. I intend to continue improving this railway with whatever goodies become available; and who knows, it might just encourage a youngster

running track, an exact figure at this moment in time I am not sure of. Access points for maintenance are provided at strategic points by means of hinged hatches. This is a possible concern for future years as the ageing process takes hold in my body, but fortunately, all is well at present. The road vehicles are mainly Corgi, Cararama and Solido. Although the buses are 1/50 scale, they do not look too much out of scale, and do add atmosphere to the London scene. Indeed, although where possible I have tried to keep to scale, I have always had the view that if it looks good, overlook minor scale anomalies. One of the aspects of



A Schools class V 4-4-0 loco introduced in 1930 by the Southern. Weight 67 tons 2cwt Driving wheels 6'9" pressure 220lbs. These locos were seen all over the Southern Region, but especially on the London to Hastings route.



A Stannier 2-6-4 tank 3 cylinder loco introduced by LMS in 1934. Weight 92 tons 5cwt, pressure 200lbs, driving wheels 5'9" These locos were seen on the London Tilbury and Southend lines.

somewhere, sometime, to be inspired as I was all those years ago to take the plunge, and build a layout of their own instead of sitting in front of a computer.

Although the stations are scratch built, accessories by Hornby, Bassett Lowke, Bachman and Skytrex are used also. My philosophy is, if it's ready-made, buy it. If not, make it. This railway has evolved over a number of years as more and more models became available ready-made. Although in the early days when ready-made locos were hard to find, I did kit build; however, with the undertaking I set myself to build, time was not available for kit building. Besides, I was not satisfied with the finished product because of my incapacities in building the said kits. One of the first challenges I faced was keeping the track clean, and continuity of power through the rails. With such a length of track that was not easily accessible,

a method of automatic cleaning was required. Some of the tunnels are over 70 feet long. The electronic application for track cleaning was unsuitable because of the electronic automatic system. I modified a number of Lima wagons into track cleaning cars with basically a Garyflex block underneath suitably weighted to polish the track and not wear it out. This method has worked for years, and I never have to clean my track. All track joints are bonded. This is a must for continuity in slow running.

For 17 years, Ace Trains of London has led the gauge O coarse scale revival in the UK, and has a larger variety of UK types than its illustrious predecessors Hornby and Bassett Lowke. Since 2008, they have made everything in both two and three rail mode. My own experience is that these coarse scale locomotives run and run, and do not fall to pieces with heavy handling. Unfortunately, it is a fact of life that the finer the scale, the more fragile the model becomes. There are some magnificent fine scale models now available which really look the part on display, but are too valuable and fragile to stand up to the



Victoria Street Terminus West Shed. A joint London Underground & Network South East Suburban Station

use on my railway. Many visitors to my railway have been unable to distinguish between locos whether they are fine or coarse scale.

When I built this railway, my intention was to attempt to create a system whereby one could see trains operating in natural surroundings passing by and disappearing not to be seen for many minutes. In other words, seeing what you would expect to see trackside. Emphasis not only to detail, but the way the trains operate. When trains enter a station, they do so at a realistic speed, and gradually come to a halt. Likewise, after a stop at a station, they slowly accelerate.

Color light signals operate correctly, and when showing a red aspect, the train will glide to a halt, waiting until a yellow or green aspect shows. Like the prototype, the system is not immune to point or signal failures, or to train mechanical or electrical failures. However, it has a safety record second to none.



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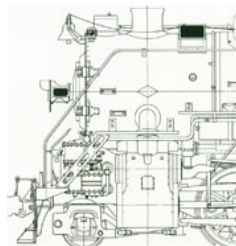
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