

NMRA



THE BRASS POUNDER

Newsletter of the Carolina Southern Division 12, Mid-Eastern Region, National Model Railroad Association

Superintendent's Corner

By Chad Barnette

Division Coming Events

**Monthly Meeting at the
home of Neal
Anderson, MMR**

**Come join us at the
KK&L Saturday, July
25th at 10:30am**

**172 Woodfield Dr.
Statesville, NC**

Happy July everyone! As we enter July, our focus turns to celebrating July 4th and the 250th birthday of our nation. And so naturally (among other things) it makes us think of how the railroad is intertwined in that 250 years.

In 1827, just 51 years after our nation's founding, the Baltimore and Ohio Railroad was chartered. Thus began the shared history of America and the railroad. From the very beginning, the challenge of carrying goods to an ever-expanding frontier was the driving force of railroads in America.

Now, 199 years into this shared history, we as modelers have a huge swath of inspiration from which to draw upon. What's your favorite time and region to model? Perhaps some of us even model other places outside of the United States. Whatever it is, I hope we all may celebrate the wonderful freedoms we all

share by enjoying the hobby that we all share.

And what better way to share the hobby than to come together at this month's get together at Neal Anderson's place! I for one am very excited as this will be my first ever visit (a crime, am I right?). We hope to see you there on Saturday, July 25th at 10:30am.

Editor's Notes

By Chad Barnette

I've been gaining steam lately (no pun intended actually) on some spring cleaning. The chaos of so much stuff is contributing to the slow progress on my layout and projects around the house in general. So recently I did a couple things using my tool chest drawers to make things run much smoother.

The first thing I did was to purge things that I never use from the tool chest. This is the key to success I think. If we can't learn to get rid of things, we are bound to make things difficult for ourselves. I was able to free up a couple of drawers. The first of which I converted to a glue drawer. As the name implies, all of the glues I have of every description can be located in this one space. I actually like how it removes the visual clutter from the shop as well. Instead of having every single glue on a rack or on display somehow, these are tucked away neatly - still displayed for the quick and easy locating of needed supplies.

Oh, I almost forgot. Let's go in reverse for a moment. I have a very large drawer that runs the full length of the tool chest that I have been storing 3D prints that are in progress. Well, the drawer had filled up. I had stuff on the work bench and I wish to have the work bench clear when I am not actively working on something. So in order to accommodate everything that was still out, I had to get rid of some stuff. Boy did I! I am very proud of myself for letting go of things I knew were not going to turn into anything. Mostly there were prototypes and iterations of projects that I thought might be eventually repurposed. I'll say that the freedom getting rid of the old stuff afforded me was so worth it! I felt foot loose and fancy free after that!



Finally I 3D printed a set of 4 trays to organize nuts, bolts, cotter pins, screws and other miscellaneous hardware. I took everything out of its package and now have more capacity for storage than I had before. This one was pretty exciting as well. And, again, I had to let go of some things. Mostly things I had way more of than I needed. If I only use a nail here and there, then I don't need pounds of nails I figured. I think I figured good.

Click the link to email me articles & ideas:

editor@carolinasouthern.org

Division and Regional News

Wade's Train Town

Wade's Train Town – June Stats

Contributed by Ed Smith, MMR

Open houses: 4
Attendance: 100
Volunteers: Ed Smith (2), Joe Pulsone, Danny Poole

AP Updates from the Plywood RR Desk

Contributed by Neal Anderson, MMR



July Rail Movements

I have Dick Bronson's Chief Dispatcher.

I have Jim Thomas Chief Dispatcher.

Richard Shulby how are you doing on Chief Dispatcher.

If you need more help just contact me.

Dylan Petro's Scenery is getting reprinted.

P.S. If you want to run something by me for evaluating.

Bring it to the July meeting at my layout.

July Monthly Meeting

Contributed by Chad Barnette

Join us for the Carolina Southern Division's July meeting on Saturday, July 25, beginning at 10:30 a.m., as we gather at the home of Neal Anderson to enjoy his outstanding KK&L Railroad. Neal's basement-filling HO scale layout has become well known throughout the region for its impressive scenery, detailed operations, and continual evolution, making it a favorite destination for model railroad enthusiasts. Before the meeting, take a virtual tour and learn more about the railroad by visiting Neal's website at KK&L Railroad. We hope you'll join us for a great morning of fellowship, inspiration, and model railroading at 172 Woodfield Dr., Statesville, NC.



Join Us

Contributed by Chad Barnette

We still have two open positions that we are looking to fill. I would love it if you would consider volunteering a bit of your time to help out our group. After all, it takes all of us working together to create a lively and engaging division. Thanks for your consideration!

CSD Program Chair – Responsible for arranging programs for Division meetings. This may include presenting a program, recruiting a presenter, or coordinating a remote (Zoom) presentation. Once confirmed, program details (who, what, when, and where) must be provided to the *Brass Pounder* editor and webmaster so members can be notified before the meeting.

RMU Chair – Oversees the Division's annual Railroad Model University (RMU), a day-long clinic event for model railroaders. Responsibilities include recruiting presenters, creating the clinic schedule, coordinating the venue, promoting the event, and assisting with registration and A/V needs.

Please contact me (superintendent@carolinasouthern.org) if you have any questions or would like to volunteer.

Intro to OpenSCAD for Model Railroaders

Contributed by Chad Barnette

I would like to introduce you to OpenSCAD. This is a brand new way those of you who want to explore 3D printing can bring your designs to life. Some of us prefer talking in terms of literal dimensions rather than using a graphical interface to design something. If that describes you, then OpenSCAD may be an option you want to explore. The best part? OpenSCAD is a completely free program to download and use. In this article we will explore how to program a real-world window that is 3 feet wide and 5 feet tall and turn it into a printable HO scale window.

Thinking in Real Dimensions

For this example, we're going to design a simple four-pane window for an HO scale structure. The prototype window measures 3 feet wide by 5 feet tall. Rather than drawing the model, we'll let OpenSCAD calculate the scale for us.

3 feet = 36 inches

5 feet = 60 inches

HO scale is 1:87, so:

$36 \div 87 = 0.414$ inches

$60 \div 87 = 0.690$ inches

OpenSCAD works in millimeters, so we multiply by 25.4:

$0.414 \times 25.4 = 10.5$ mm

$0.690 \times 25.4 = 17.5$ mm.

The Code

```
// HO Scale Window
// 3 feet x 5 feet real world

scale = 87;

real_width = 36;    // inches
real_height = 60;   // inches

width = real_width / scale * 25.4;
height = real_height / scale * 25.4;

frame = 0.8;
depth = 1.0;

// Outer Frame
difference() {
    cube([width, height, depth]);

    translate([frame, frame, -0.1])
        cube([
            width - frame * 2,
            height - frame * 2,
            depth + 0.2
        ]);
}

// Vertical Mullion
translate([width/2 - frame/2, 0, 0])
    cube([frame, height, depth]);

// Horizontal Mullion
translate([0, height/2 - frame/2, 0])
    cube([width, frame, depth]);
```

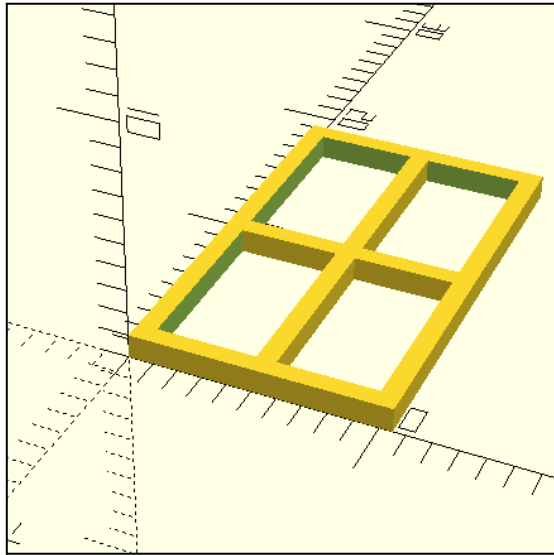


Figure 1. The completed OpenSCAD rendering of our four-pane HO scale window before exporting it as an STL file.

How It Works

The program uses just three primary commands:

`cube()` creates rectangular solids. Every piece of the window is simply a cube with different dimensions.

`translate()` moves an object before it is drawn. We use it to position the vertical and horizontal mullions in the center of the frame.

`difference()` subtracts one object from another. We create one large rectangle, subtract a slightly smaller rectangle, and the result is a hollow window frame.

Where Do You Go From Here?

Once OpenSCAD renders the model, choose File → Export → Export as STL and load the file into your slicer (such as Bambu Labs like I use). By changing only a few numbers, you can make larger or smaller windows, change the frame thickness, add additional panes, or even design entirely different structures.

For model railroaders, OpenSCAD offers a refreshing alternative to traditional CAD software. Instead of drawing with a mouse, you describe your model with measurements and simple commands. Before long you'll be creating custom windows, doors, freight platforms, signs, and countless other details that make your railroad uniquely your own.

In a future article we'll build on these same three commands to create more detailed parts for our layouts. Once you learn the basics, you'll discover that programming a model can often be faster than drawing one.



From the July 2021 Archives

Train Town Relocation Progress

Contributed by Gil Brauch, MMR - Project Manager

STEADY PROGRESS TOWARDS RESTORATION

We held two official work sessions during June. The first was on our normal monthly meeting day and was well attended. Not only did we get some Division business done, we were able to assemble six of the nine tables and begin work on putting the new wiring on them. Topside we began repairing the scenery on the seams and re-attaching the trackwork. Thanks to the following guys for helping out: Ed Smith, Keith Iritsky, Gil Brauch, MMR, Danny Poole, Alan Hardee, Ken Riddick, Ed Gumphrey, Bob Halsey, Henry Reeves, Neal Anderson, MMR, David Myers, and John Yarborough. Ed got some photos, shown on the following pages.

WORK REMAINS TO BE DONE

Our second work session on June 26th consisted of six of our members. Danny Poole and Ed Smith continued with installing the wiring under the table, while Larry Paffrath and Ken Riddick concentrated on cleaning up loose material on the tables in preparation for repainting the roads and parking lots. Keith Iritsky continued with trackwork connections and began the project of adding cross braces to the legs. Gil Brauch worked on repairing the scenery 'at the seam' between the tables. We also were able to attach two more tables, leaving only "downtown" to be hooked up. We will make that last attachment after finishing up work in the middle of the layout.

Task goals for the four working sessions during the month include making the last table connection, having all the electrical systems operating, and having trains running. We also should have all the buildings ready for installation and the ones in the 'hard to reach' areas installed.

NOTE: This article is from the archives - there are no work sessions planned.



The group of members at the June 19th work session, from Left to Right: Keith Iritsky, Henry Reeves, Ed Smith, David Myers, John Yarborough, Ken Riddick, Alan Hardee, Danny Poole, and Gil Brauch, MMR. Ed Gumphrey was behind the camera, and Bob Halsey and Neal Anderson, MMR, who also helped out, had left just before the photo was taken.



Ken Riddick brushes up dust and debris on one of the tables.



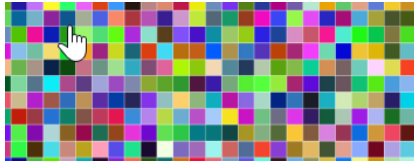
Alan Hardee scrapes away some ballast that needs to be refreshed.



Ed Smith happily crawled around under the railroad running wires.



Danny Poole was the other half of the wire-running team.



Digital Distractions

Best of: Building Railroads — The History Guy

If you enjoy learning the stories behind the railroads we model, set aside about 40 minutes for **Best of: Building Railroads** from **The History Guy**. This compilation tells the fascinating human stories of railroad construction, engineering challenges, and the people who overcame them.

Channel: [The History Guy: History Deserves to Be Remembered](#)

Featured Video: [Best of: Building Railroads](#)



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