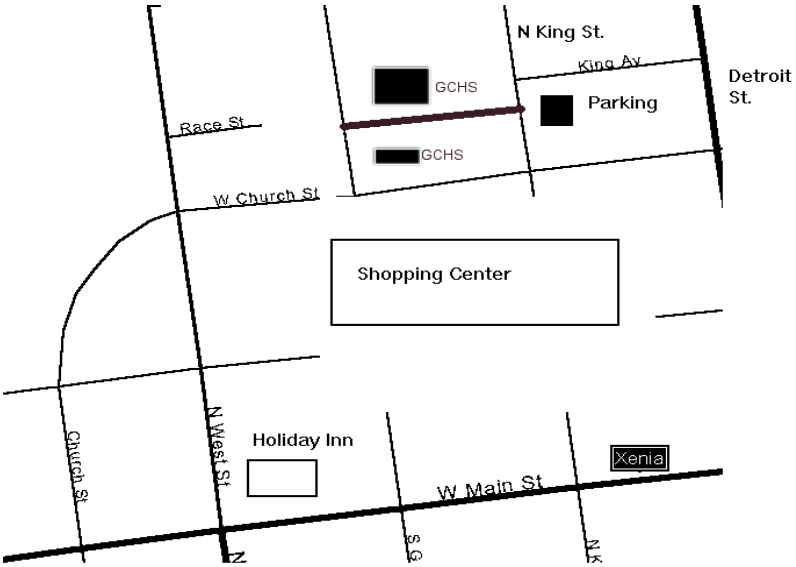
Call Board

Volume 54 Issue 3 November 2014

This Month's Program ...

November brings us **John Santel's** clinic on **Painting Steam Locomotives**. The presentation will cover the steps he goes through in painting models, both brass and plastic. What he uses to strip and clean a model, the primer he uses on brass, 2 brief videos showing airbrushing and the equipment he uses.

The meeting will be at 2pm on Sunday, November 16, 2014 at the Greene County Historical Society in Xenia



Division 3, MCR, NMRA meets the third Sunday of each month except August. Meetings are open to all members of the NMRA and any one interested in railroads or railroad modeling.

Division 3 Website: www.modelraildayton.com

SUPERINTENDENT'S COMMENTS FOR NOVEMBER 2014

By the time Division 3 members receive this issue of the Call Board, our 39th Annual Train Show will be history and hopefully a resounding success. We will provide a detailed report on the train show in next month's issue. But at this time, I wish to thank all those involved with the planning and execution of our train show; it was an extensive and exhausting last two months, and I appreciate all your efforts. Thanks so much. Now we will begin focusing our attention on our annual Model Railroad TRAINing Day, which this year will be March 14, 2015. Also, we continue our plans to evolve the position of the Division Director of Training on the Board of Governors.

Thanks to:

John Santel for volunteering to help an individual who requested assistance in getting his father's brass engines in working order.

Gail Richardson for volunteering to get help from the Garden Railroad Society in meeting the needs of a request from a Huber Heights planning agency for an operating train at a Christmas Tree Lighting ceremony.

John Burchnall for speaking on the Secrets of the Eastern Loggers at the October general meeting. John provided specific information on this wonderful layout, but he gave us plenty of tips that should prove useful on any layout.

Special Request: I have received a special request from a former Dayton native who remembers photos of an O scale layout at the old Dayton Train Station. If any of our membership remembers or have information on the whereabouts of those photos, would you please contact me, and I can pass along the information to that individual.

New Director of Training:

Ray Baldwin has volunteered to be our new Director of Training to assist us in planning and executing our training and achievement programs. We will begin to tackle the Model Railroad TRAINing Day, which is scheduled for March 14, and we plan to provide more detailed information and instructions for earning AP Awards and Certificates, beginning with the Golden Spike Award.

Miscellaneous:

The next BOG Meeting is scheduled for November 10. Please forward any comments or ideas you wish discussed to me before that date.

I am aware of one immanent train show: Springfield Train Show on December 7 at the Springfield Fairgrounds.
And finally, we hope to see everyone at the November General Meeting at the Greene County Historical Society building at 2 PM. John Santel will talk about painting locomotives.

Rick Lach
Superintendent

Contests

We have three categories each month. You can enter Scratch Built, Kit Bashed, or just plain Kit built. This allows anyone to enter anything they are proud of and at any skill level. Judging is by popular vote but if you wish to have your model judged by NMRA rules for the Achievement Program, we will make arrangements for you "on the spot".

The coming contest schedule ...

November - Weathering

December - Structure
January - Open Loads
February - No Contest
March - Freight Cars
April - Passenger Cars
May - Diesel Locomotives
June - Steam Locomotives
July - Non-Revenue Cars
August - No Contest
September - Make it cheap (1-3-5 Dollar)
October - Caboose

Results for October 2014
Caboose

LEVEL 1	Kit
First Place	John Santel
LEVEL 2	Kitbash
First Place	Wil Davis
Second Place	Bob Fink
LEVEL 3	Sctratchbuilt
First Place	
PHOTO	
First Place	Nate Adams
Second Place	Nate Adams
Third Place	Wil Davis

Kit First Place

Kitbash First Place

Kitbash Second Place

Open Operating Sessions

The Darke County Model Railroad Club is inviting anyone who is interested in operating their layout to join them. They meet on the second Sunday of the month, starting at 1:00 pm. There is plenty of parking and lots of fun. They are located at:

405 1/2 S. Broadway
Greenville, Ohio
(Second Floor)

SOLDERING FOR MODEL RAILROADERS

By: Stephen C. Wood, MMR

What I am about to write is an introduction to soldering for model railroaders. I will focus on the basic such as wires, and small components. There is one part of soldering I have not tried which is soldering brass models/ parts. When I tell you I am not an expert at all and everything I am about to write is from trial and error as well as the expert help and learning skills of my father Charles Wood.

When I first touched a soldering iron about twelve years ago while building the 4th layout with my father. I thought it was going to be the most difficult thing I had ever done (which includes basic training in the Army). After a few mistakes and persistence I realized it wasn't any harder than building a model car or building. The first lesson my dad taught me right off the bat was that the solder has lead in. It was not really a great idea to inhale fumes from the soldering process. In addition, when I went to purchase my first roll of solder he advised me not to buy acid-core solder. The next lesson was the reason some people have a hard time soldering, or get cold solder joints is because the tip of the soldering iron is not clean and shiny. He stressed a clean and shiny tip conducts the best heat. I learned to keep a wet sponge handy at all times. I have also been told you can use a wet paper towels. I have never tried that method but looking at it I believe that would be too messy for me. A very important rule is that the work and not simply the solder must be hot.

Let's first look at what you'll need. First off you will need to choose your soldering iron or gun and possibly a desoldering tool such as the RadioShack® 45-Watt Desoldering Iron. This tool will be useful for mistakes. They will happen. Other items that I keep on my work bench are a stand to hold the iron, a place where my sponge can sit without getting my table wet, and a Helping Third Hand Magnifier. That is a magnifying glass tool which has two sturdy alligator clips for holding PCBs, wires, parts. Another useful tool is a small vice. Another important item is rosin flux. In addition as I set up to solder, no matter what my work bench looks, I always clean the area first. I make sure the chair or stool I am using is at the right height for me. My 7 year old daughter likes to play with my trains and will move the chair/stool and change heights on them. I have a board on top of my work table that is about 6 feet long and two or three feet wide. I place all the leads on the board before I start or I put the Helping Third Hand Magnifier with the alligator clips on the board. I do not want to spatter or drop any hot solder on my work area or on myself.

Even though I have my own building to house my trains my seven year old daughter finds her way in. Yes she loves to run the trains, but when it comes to soldering just like my tools and x-acto knives I do not solder when she is around. I believe in safety first when working with solder. I do not have a pet like a dog. If I did I

would not solder around him/her either. Besides being told not to inhale the solder, I was also told to wash my hands when I finished. Always remember where you put the soldering iron and when not in use put it in its holder. I quickly learned that solder can drip! When wiring leads under my layout to the buss, I learned not to put my leg under my work. I laid a small piece of plywood over my legs to protect from the drips. Another safety feature should be the use of safety glasses. I have had solder spatter, but not in my face. I believe it could happen.

If you are not sure about soldering, purchase some cheap wire and strip the ends. Like in school or playing sports growing up, you learned with practicing over and over. In addition you need to learn to choose the right soldering iron. I am not saying go out and buy all the different types, but you may be able to borrow one or two different kinds from a friend. After trying these, you will be able to choose the one that suits you best. Learn the basic of soldering, and practice, practice, practice. Your confidence will grow and you will be able to handle complex jobs.

When it comes to the different soldering guns, people will argue which is better and why. I was told to purchase a soldering station which I thought looked more like a welding tool. I understand it has a low voltage, high current through its tips. I looked at its price and I thought it was expensive. My father had a soldering gun for many years (I believe over 25) and he informed me that it carried 100-150 watts. Ok, I tried it on the leads and above the layout it worked great, but underneath doing the leads to the buss wires I thought it was too heavy. I then went to my local hardware store and found a soldering iron for around $20. It was rated 25-35 watts and it worked perfect for me above and below the layout. I was at a friend's house a few weeks ago and he had a Propane Soldering Iron. I haven't tried it but he swears by it. The bottom line here is your soldering iron is a tool for applying heat and I suggest you use what you is most comfortable for you. One last comment on this subject; I believe a low wattage iron is safer for a beginner, but a higher wattage can be useful if you're soldering wire to flex track. Many irons and guns have selectable wattage.

When I first learned to solder one big question lingered in my mind. Did I have a good solder joint? I learnt very quickly the solder joint should be shiny. If you have wrinkles (I did at first), or have a frosted look or even if it appears dull 9 out of 10 times you have a cold solder joint. After the solder has cooled, check for a loose wire. If it wiggles, you have a major problem. I learned to tug every solder joint I had just to test my soldering. If it came apart or if the wire was loose that was not a good solder joint. In the beginning I had a lot of loose connections. After practicing and soldering over 400 connections on my fourth layout, I had become proficient. Working now on my fifth layout I have yet to experience a major problem. Remember: wait until the wire has completely cooled before you tug it or check it. If you move it before it cools, you will have a very poor connection.

Once you have mastered the art of soldering things like leads, now is the time to take the next step. Find some old track that you really don't need or at a train show spend a dollar or two on some old used track. When you are ready clean the rail using an extremely fine abrasive, such as number 600 emory cloth (if you cannot find this at your hardware store, try a kitchen cabinet maker). Now apply a small amount of flux. I use a toothpick; others use the end of the solder. Warning; **too much flux will leave a residue when the project is completed".**

A little advice: Soldering rails together without melting the plastic ties is a difficult challenge. I always remove two ties. Once the ties are removed, track is cleaned and the flux is applied I learned from some fellow modelers you apply the heat to one side and the solder to the other. When you solder wire to any rail, apply the heat source to the wire and solder at the joint. Yes people, including me didn't always do that at first. It was trial and error until I went to a great program (Railroad Model University) put on by Division 12 a few years ago. There I learned the proper technique. The most important lesson I learned was this: you tin the wire first as this will make the process go faster. Another lesson I learned was to work fast. You will damage the rails if the heat source is applied too long. Remove the heat source as soon as the joint is complete. I also learned at this clinic that once you are done soldering and before the joint is completely cool, you clean the joint with a track pad or light sandpaper. I learned cleaning the joint while it is still warm or has heat will yield you a better finish.

One thing I have yet to mention is **"what are you looking for as the final result".** Your solder joints should look smooth and consistent. Remember a light pull/tug on the wires should not be enough to break apart. Do you remember I told you to remove the ties? When you remove them be careful as the ties can be reinstalled.

Now you have mastered soldering your leads, the track and now soldering leads to your track let's take a look at soldering your leads to your buss. First off, the wire can impact the time and heat necessary for a good connection. I had two local members of CPD13 help me with this. I am using 16 gauge wires for my buss. In my attempt to wire my leads to the buss I am using a soldering iron that only puts out 100-140 watts. I purchased a pair of strippers after I was shown what to purchase. You remove only enough insulation from the wire for the joint. Do not strip both buss wired in the same place. Go down 3 or 4 inches. Clean your wire first and then flux them. Make sure your lead wire is tinned. Soldering your leads to your buss is awkward. Be careful to avoid drips or splatter. You need to twist the lead to the buss tightly. This will give you a great connection and your hands are free to work. I have heard but not tested this, when finished and everything is cool then to wrap your connections in electrical tape.

My best advice is **take your time** and do not rush no matter at what level you are in the soldering process. Taking your time will cut back on troubleshooting later. You are soldering every connection to prevent problems, not cause them. I know this is about soldering; I would like to add one minor point. Take notes so you can remember what the color of each wire represents. Color coding your wires makes maintenance easier and having the color scheme written down is even better.