



# NEWSLETTER

Vol. 36 – No. 2  
March - April 2024

**Current Central Station 3 Version – 2.5.2 (6)**  
**Current Central Station 2 Version – 4.3.0 (11)**  
**Current Mobile Station Version – 4.13**  
**Current MS WLAN Version – 4.0.0.1**

**Digital Consultants**  
**Rick Sinclair**  
**Curtis Jeung**

---

Spring is technically here, but for many the cold persists. We are getting ready for the Rocky Mountain Train Show in Denver, Colorado and hope to see many Club members there.

There has been a minor update for the CS3/3+. The update is for the Mobile Station to bring it to SW v 4.13.

Our first article is a look into programming a decoder with a Central Station 2 or 3/3+, while our second topic deals with a beginner's equipment guide towards Central Station events.

Recently, I have had discussions with users about programming a decoder with a Central Station (CS). One person asked if it was possible to program with a CS2 and I quickly replied "Yes... I think." For a split second I thought the answer was a clear "yes," then I realized that I have never tried it. So, I decided to give it a shot.

First, programming with any CS is the same, there is only one extra step when programming with a CS2 which I will cover at the end of the article.

The convenient thing about programming with a CS is that you don't need the programming stick (60971), and for programming LGB/Gauge 1 you do not need the decoder programmer adaptor board (55129) for the LGB 55029 decoder. This is because the files are sent to the CS, then transferred to the locomotive.

## **Programming with a Central Station (2 or 3/3+)**

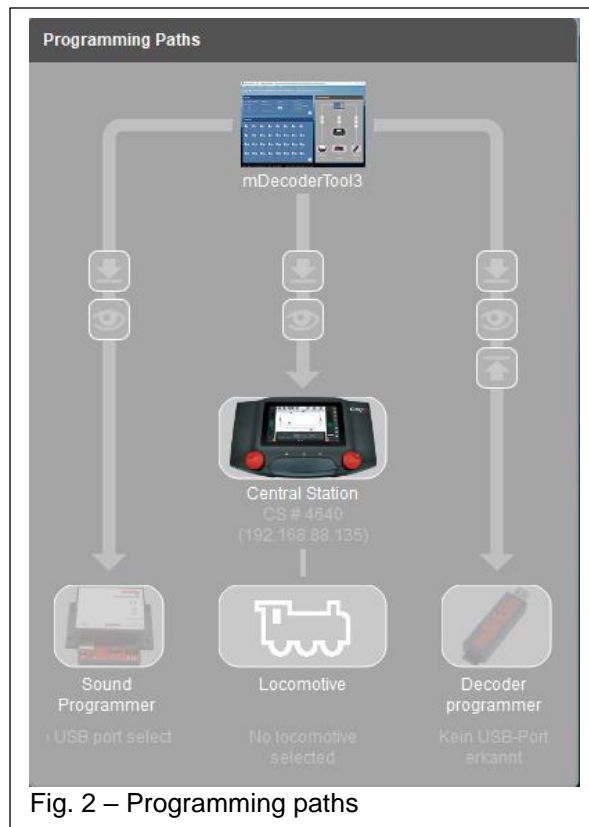
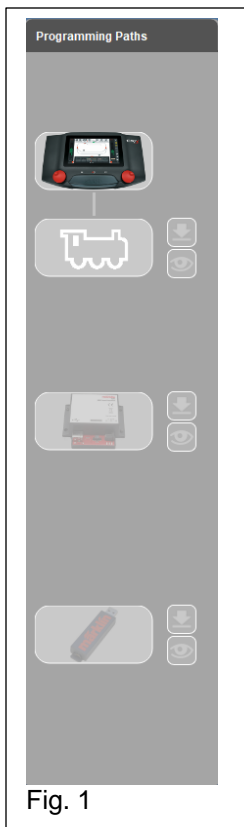
There are a few requirements to programming with a CS. The first thing that will need to be done is to ensure the CS and PC you are using to do the programming are connected to the same router.

This is how the CS will get the decoder profile and load it into the locomotive decoder. The IP address of the CS is not needed since we will not be logging into the CS. The second thing is that the decoder would need to be wired into the locomotive. It does not matter if it is a decoder with wires or a pinned decoder, it just needs to be installed into the locomotive correctly.

When the decoder profile has been modified for the correct settings on a PC, meaning all the parameters have been changed and sound/icons are correct, it is just a matter of choosing the correct programming path.

The decoder that is to be programmed needs to be registered into the CS. This decoder will have the default functions and default sounds if it is a sound decoder. Either way, it still needs to be installed into the locomotive, and it needs to be registered in the CS.

The programming path is shown in Fig. 1 and 2. This is just an image of the two different screens for the programming path that the “mDecoder Tool3” offers. They both do the same thing.



Both programming paths show an image of the various components to program decoders. If the image is lit up and not greyed out, then that path can be chosen. I am only using the CS so the image is in full color. If there are several CSs connected to a router, a different CS can be chosen by clicking on the CS image. Then a drop-down menu will appear to select the desired CS (Fig. 3). If there is only one CS connected to the router there will be no second option.

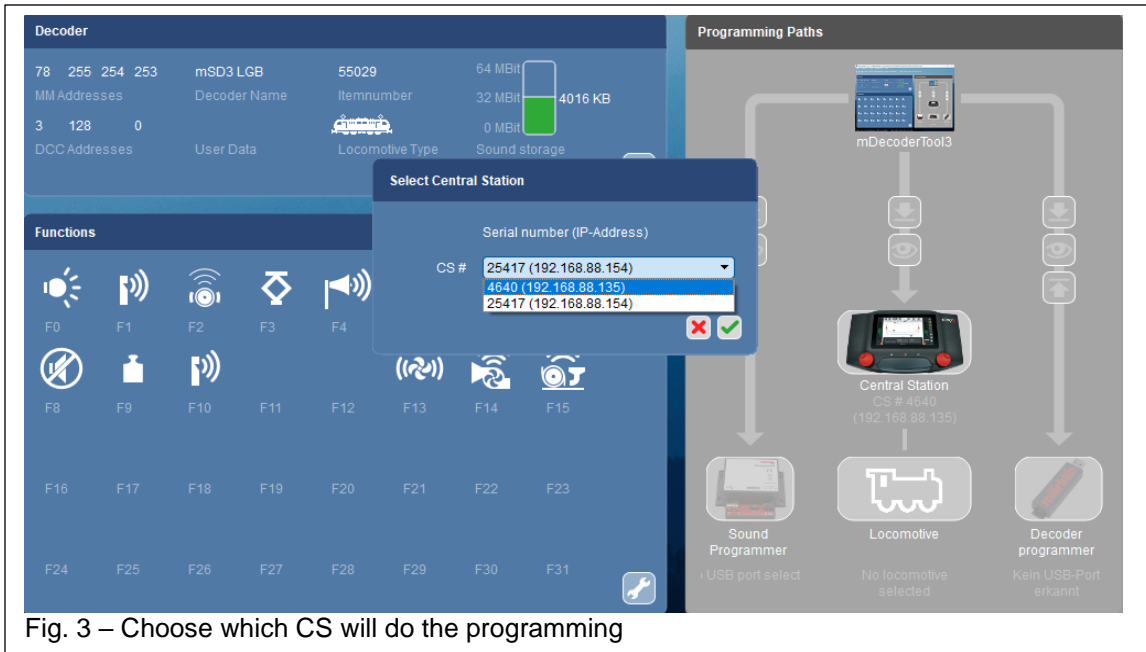


Fig. 3 – Choose which CS will do the programming

Under the CS there is an icon of a locomotive. By clicking on the icon, a drop-down menu will appear of the locomotives that are in the CS inventory (Fig. 4). The default icon of the decoder will be displayed in the locomotive window once it has been chosen for programming (Fig. 5). Now that the path and decoder have been chosen, all that is left to do is to initiate the programming with the down arrow (Fig. 5 circled).

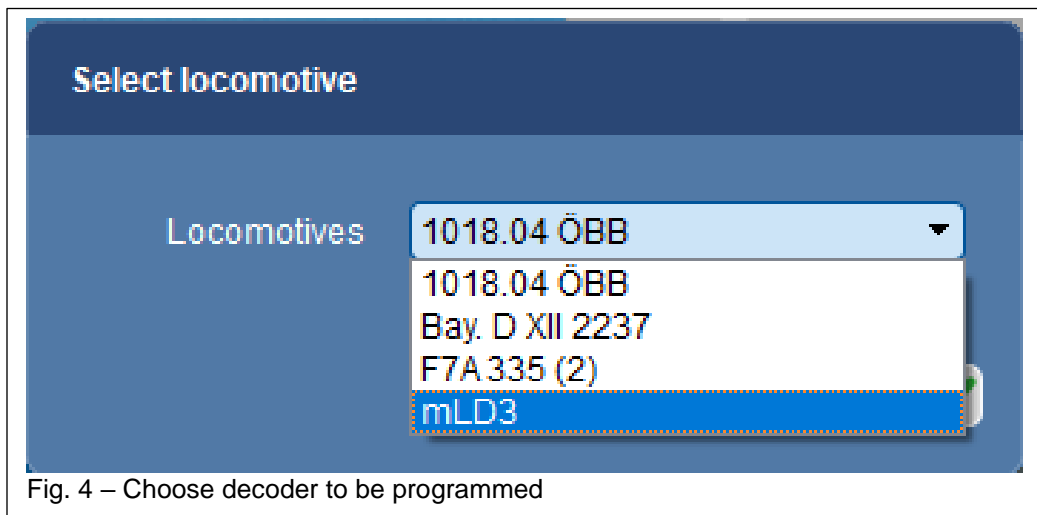


Fig. 4 – Choose decoder to be programmed

**NOTE:** The most important thing is that the locomotive (decoder) to be programmed MUST be on the programming track.

The mDecoder Tool 3 requires the profile to be saved on the PC or it will not start the programming. Also, if there is a firmware version update, it will initiate that also then ask again if the decoder should be programmed.

If everything is done correctly, a progress bar should start moving across in a pop-up window.

Now for the downside. While non-sound decoders are just functions, they can be written to the decoder very fast. Sound files take longer to write to decoders. This will take much longer through the CS than through the programming stick. Expect 5-10 minutes for a decoder profile to upload and even longer if the decoder memory is full of sounds.

### Programming with a CS2

Like I said, there is only one extra step to programming with a CS2. Since there is less memory in the CS2, a USB stick will need to be inserted into it to store the temporary files that are being uploaded. The CS2 will not program the decoder if there is no USB inserted. There will be a pop-up window asking if a USB is inserted with a “Yes” or “No” box (Fig. 6). The pop-up window instructs the user to turn off the CS2 then insert a USB stick and re-boot. I tested this and I was able to insert a USB stick into the CS2 without rebooting. When “Yes” is clicked the programming starts.

I hope this clears up any questions there might be using the CS for programming.

**Enjoy your hobbies!**

**Rick Sinclair**



Fig. 5 – Programming path and decoder chosen

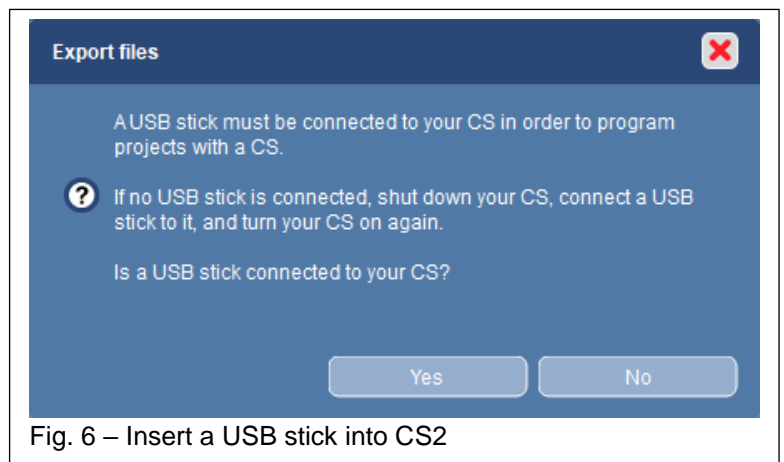


Fig. 6 – Insert a USB stick into CS2

## The Beginner's Equipment Guide towards Central Station Events

As the title suggests, this article is directed towards new Central Station (CS) users who will learn it is more than just a train and track controller. CS Events are controllers that allow for creating one touch commands of multiple actions. They are also used in creating hands-free multi-action controls as well. They can be used to create safety measures that prevent trains from colliding (often referred to as block controls). They are used in preset Macros such as shuttle trains in a point-to-point line. In this article, I will discuss the basic components necessary to experiment with events.

For events to work, they need to be initiated or “triggered.” An event that is purely software based is triggered manually. In other words, it requires no additional components to execute an event. By default, an event is set up with a manual trigger. Manual events are ideal for locomotive sequences, or actions that aren't guided by any rules. Another option is to have events triggered by track sensors.

For events with track sensors, you will need to have additional components to use with the CS to function. Track sensors come in three main production forms:

Sensor Type	Product Number	Installation Notes	Functionality
Contact Track	24995	Requires 94 mm straight run at each end of contact track section	Isolates one outer rail and functions as a switch
Circuit Track	24994, 24294, 24194	Triggered by Center ski runner on 3-rail trains. Trains with two runners can affect event operation	Has a bi-directional set of contacts creating a direction detect
Magnetic Reed Switch	7555	Reed switches require modifications to track for mounting	Magnets placed on rolling stock activate the switch
Contract Track modification. (24995 not required)	74030 Track insulators	This is a modification to standard C-track to isolate outer rails. Track insulators are required. Can be adapted to straight or curved track	Same as prior Contact Track

The displayed contact tracks need to be used in pairs, unless installed at stub ends.

Regardless of the sensor types that you may use, you will need to have a feedback module. The Feedback Module or S88 devices will have 16 inputs that the track sensors are connected to. There are three types available, see below.

Sixteen sensors can be wired to each Feedback module. Multiple modules can be connected using ethernet 8 pin cables (RJ45).

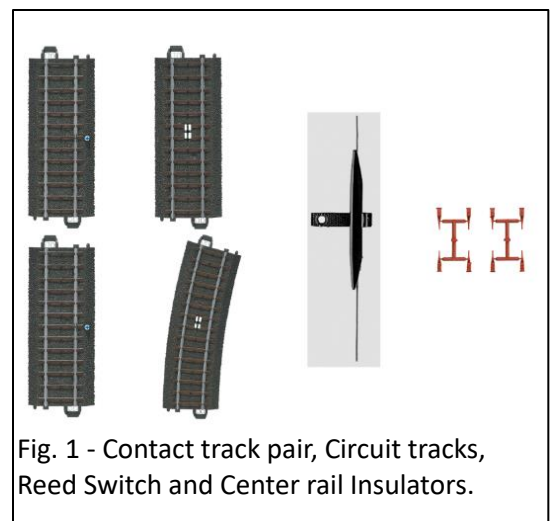


Fig. 1 - Contact track pair, Circuit tracks, Reed Switch and Center rail Insulators.

For backwards compatibility to older S88s (6088, 60880) then an L88 is needed along with a separate Switched Mode Power Pack (66367). The older units operate under a 5v setup with ribbon cable connectors.

Module	Product Number	Product Details
S88 Decoder	60881	Ideal for any type of sensor connection
S88 DC Decoder	60882	Good for 2-rail layouts. Not ideal for Contact tracks
L88 (or S88 Link)	60883	Like 60881 but does require a SM Power Pack (66367). This unit is required for connectivity to older style S88s (6088, 60880) which use ribbon cable connectors.

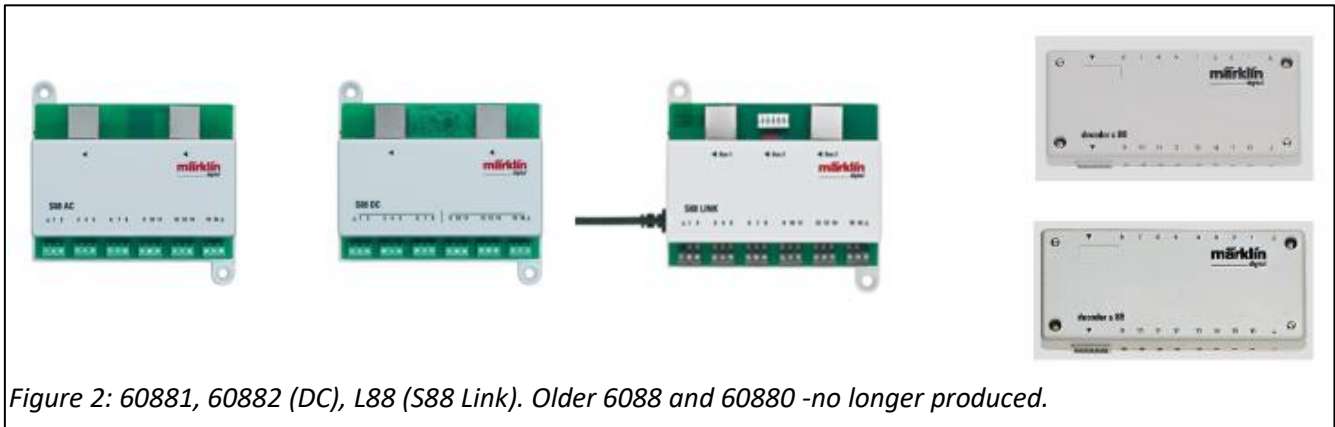


Figure 2: 60881, 60882 (DC), L88 (S88 Link). Older 6088 and 60880 -no longer produced.

The above components are listed if you would like to explore any events that require track sensor triggers. These components would also be used if you are using computer aided controls instead of the events feature in a CS.

**Quick Tip: Extended Screen Control with the CS3/3+**

If you're a CS3/3+ user with a layout that always seems too large to control visually on the CS's screen, then read this. From the CS2, Märklin began to have supplemental screen access. It started with the Main Station or Mobile Station App (no longer available). The CS3, for a time, also used the app, but it had flaws.

Currently, you can supplement the CS3 screen in two ways. I'll state some pros and cons for each in the following.

Web browser - This is an ideal operational user method; it allows access to all operational control functions. To be clear, "operational" refers to just operational play of the layout. Many editing operations are not accessible in this mode of control. Event editing cannot be done through the web browser. This is preferable as it does prevent any tampering on such an easily accessible format. It probably also reduces any latency (lag) of control. It also benefits use by multiple users.

**REALVNC Viewer** - The REALVNC Viewer is an ideal setup where you can connect and control your CS3 via computer. The CS3 is set to operate as a screen server, and the viewer accesses the server screen and displays it in a window. This is a one-to-one representation of your CS's screen, and you'll have access to all the functions in the CS3. If you need to make any edits to your CS, this is a good option as it can be more efficient to execute when compared to making edits on the CS3 screen. Event editing is a prime example of this.

To set up the Screen Server for REALVNC Viewer you can follow the instructions found in the CS's system/settings - Screen Server panel. I DO recommend you use the REALVNC Viewer link found in the panel. Do NOT use any subscription or pay procedure that may pop up, as it is not the same as the link (which is free to use).

As stated in the beginning of the article, the main intent is to expand the control surfaces available. The VNC viewer only creates a duplicate of the CS screen but gives you full edit access. The Browser option will allow you to view a different display from the CS3 screen.



Figure 3: CS3 Screen Server setup page

For an expansion of what you can control, all you need to do is open another browser window so that you have two or more browsers shown on your monitor (even multiple monitors). Each window can have a different display via the CS3. The example is shown in Figure 4. I have three browser windows open for desktop control in addition to direct CS3 access.

**Curtis Jeung**

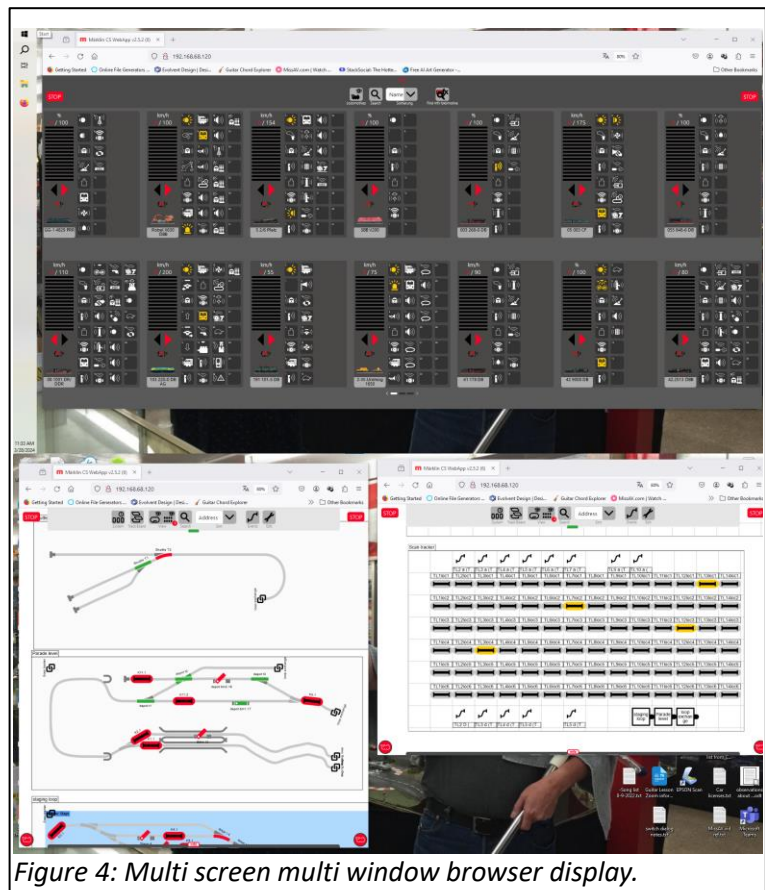


Figure 4: Multi screen multi window browser display.

---

## Upcoming appearances:

- **Rocky Mountain Train Show**  
Denver, Colorado  
April 6<sup>th</sup> – 7<sup>th</sup>
- **ONLINE Webinar**  
April 10<sup>th</sup>
- **InterCity Trains and Hobbies - *In-Store event***  
19965 96<sup>th</sup> Ave - Langley, BC Canada  
Toll-Free: 1-855-587-2467  
Saturday, May 4<sup>th</sup>

**To contact Rick and Curtis for help with your Digital, technical and product related questions:**

Phone: 650-569-1318

E-mail: [digital@marklin.com](mailto:digital@marklin.com)

Hours: 7:30 AM – 4:30 PM CT Monday-Thursday / Friday 7:30 AM – 1:30 PM CT