NEWSLETTER

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Digital Consultants
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Current Central Station 3 Version – 1.3.3(1)
Current Central Station 2 Version – 4.2.1(0)
Current Mobile Station 2 Version – 2.7

Since our last newsletter, we attended the NMRA National Train Show in Kansas City, Missouri, where we displayed a wide variety of product in all five scales and demonstrated the Digital system.

We celebrated LGB's 50th anniversary with a big event in Perris, California. The entire Märklin USA staff was in attendance and Mr. Janko Franke, Export Manager, traveled from Germany for the event. It was held at the Orange Empire Railway Museum. We demonstrated the CS3 running LGB trains and we had a huge LGB product display. Mr. Franke arranged to have a large exhibit of historic LGB memorabilia on display. Museum staff and volunteers gave attendees trolley rides and train rides into town and back.

The real Grizzly Flats Chloe locomotive and cars from the Ward Kimball collection were on display in the locomotive shed. Raffles and a silent auction were held to raise money for the Chloe Restoration Project. In-N-Out Burgers were served and the evening was topped off with LGB 50th anniversary logo cupcakes. Everyone had a great time!

We are getting ready for our Fall events with several shows and dealer in-store events coming up. Please check our "Upcoming Appearances" list on page 9.

In this issue we show the new "Start up" grade crossing and compare it to the old crossing in our last newsletter. Rick explains the slight differences and finds unexpected surprises with the new crossing.

Our second article covers the recent CS3 update version 1.3.3(1). Curtis discusses the significant changes and advantages of this update.

New Grade Crossing

In my last article, I detailed how I took my old grade crossing 7292, from when I was a child and separated the circuits and connected it to an M84 with a flasher unit for the lights. After completing the project, I was curious to see how the new Grade Crossing 72943 works. I ordered the new one and it arrived quickly, so I could compare it and write about them back to back (Fig. 1).

Fig. 1 - Modern grade crossing 72943

The 72943 Grade Crossing works on the same principle as the old 7292M / 7292K crossing. This means that there is an insulated rail and the locomotive / wagon wheels close the circuit to activate the grade crossing.

What Märklin has done is integrate a circuit board to activate the function. I have removed the cover plate to show the circuit board (Figs. 2 / 3). Note: There is no need to remove this cover or the circuit board.

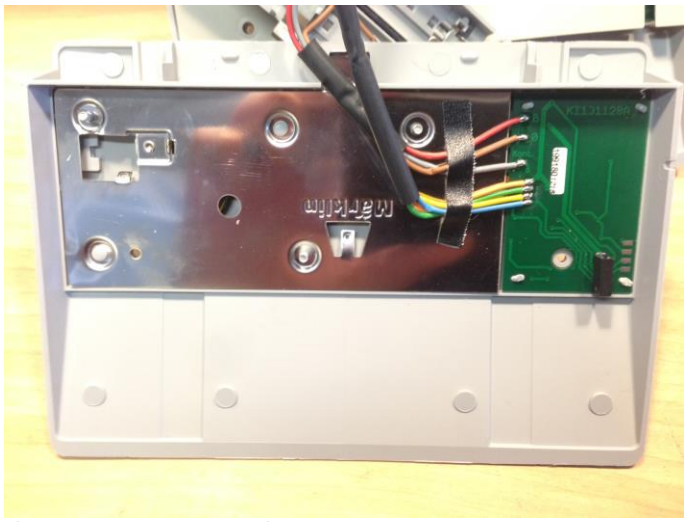


Fig. 2 - Cover removed

This board controls both the lights and gates. With a simple installation, the grade crossing works as it should. The locomotive wheels activate the unit, which starts the sequence. The last wagon leaves the last contact track and ends the sequence.

The lights come on and also blink alternately. (I think they used my idea here!) The gates come down nice and soft. I also noticed the magnets don't heat up when they are left on for a long period of time. This was always a concern with my old unit. This all works well using track power, and there isn't any digital interference making the gates jump or the lights flicker.

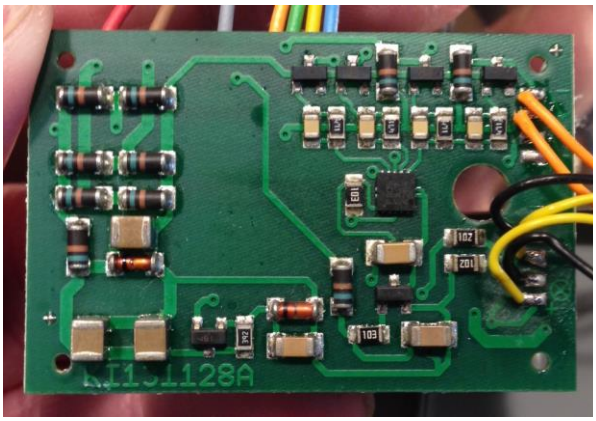


Fig. 3 - Circuit board

Another nice feature is that there is a slight delay once the last wagon has left the contact area. This means that if the wheels or rails are slightly dirty, the unit will stay activated until the last wagon leaves the contact area.

M84 connection

Since this unit works so well, I decided to see if I could activate the sequence from an M84. It is as simple as connecting the grey wire to the green output of an M84 with an “0” track feed to the center input of the same M84 channel. From there is it just a matter of activating the crossing in a route script (Fig. 4).

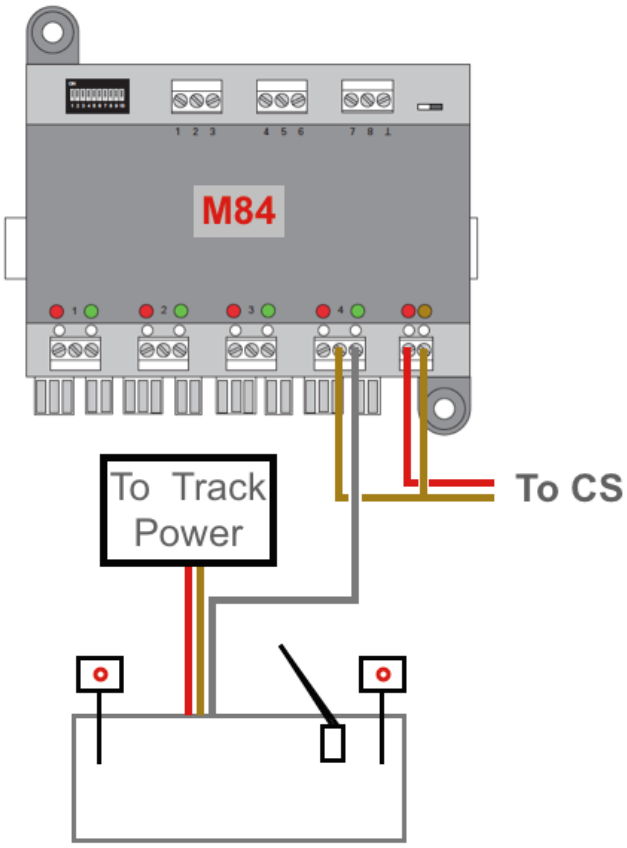


Fig. 4 - Connection for route activation

Observations

The only difference between my modification to a 7292 crossing and this 74923 crossing is that I have the lights and gates separated so I can activate them at different times.

This new crossing does have a slight delay when the lights come on and the gates come down. So, for the amount of work it is to modify an old crossing, it is very much worth getting this new unit.

The last thing I noticed was the unsightly power contact is missing next to the gate arms. I am glad to see this go, because it looks very clean and prototypical without it (Fig. 5).


Fig. 5 - Contact deleted

Care and Spare Parts

This unit is just as fragile as the older ones. Since this is in the “Start up” line from Märklin, there is a chance that it would be used on a layout where children are present. With that said, there is the possibility that the gates might break.

If this happens, Märklin has included the part number for the gates to order as replacements, part number E412700. This can be found in the back of the manual.

Unfortunately, there is no replacement part number for the crossing post for this new crossing, but part number E412660 is available for the older 7292 crossing. I don't see why these old crossing posts wouldn't work on the new crossing, but I will have to wait until I receive my order and can give them a try.

Enjoy your hobbies!

Rick Sinclair

CS3 Update 1.3.3(1)

In my last article, Digital Newsletter (Vol. 30, No. 4 2018), I covered the method of connecting your Central Station to a personal computer. At the time of the newsletter delivery, Märklin had released the software update to version 1.3.3(1) for the CS3/CS3+. In this article, I will cover the significant changes that this update allows. One such improvement adds an additional method of connecting to your PC device. The other improvement enhances some of the event scripting capabilities of the CS3.

To recap, the CS control connection to your PC that was covered in the last article applies to all versions of the CS2 and CS3 family. In this update, the improvements I will describe here only apply to the CS3 and CS3 plus. The first change to note, is it is now a simpler process to connect to your PC (I'll get back to that in a second). The next positive outcome of this change is you are no longer restricted to just accessing your CS3 with your personal computer. This update allows you to connect and control your CS3 with any type of wi-fi device with a screen. That is, you can now use your mobile phone or tablet as a controller.

Fig. 1 - Example of IP number in URL field "192.168.xxx.xxx"

The significance of this is while there was a mobile application (Märklin's Mobile Station or Main Station) specifically developed for the CS2, you will not need the app to operate your CS3. You just need to have a web browser of choice available.

Before I get into the connection process, there are a couple of things that you should know. Unlike the CS2 app or the method described in the last article, this method does require an internet accessible router

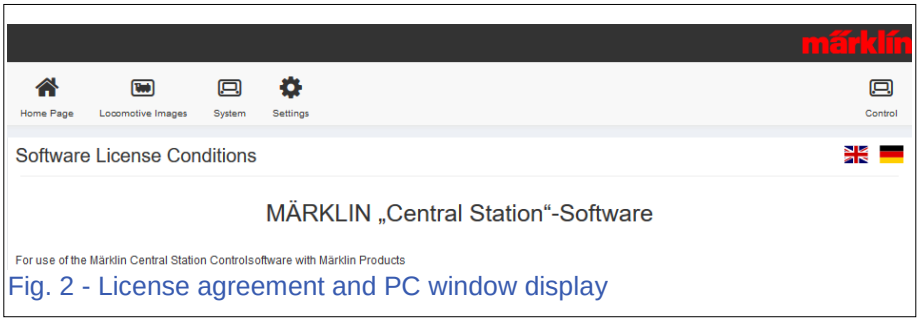


Fig. 2 - License agreement and PC window display

connection. The previous methods do not require internet access and can be used within an isolated network. This may be problematic if the wi-fi router that is connected to your train system does not have internet access to the web.

The second thing to be aware of is this is noted to be a working test release (beta version, if you will). Therefore, it is subject to evaluation of faults, fixes and updates. Think of it this way, Märklin is reaching out to its users for feedback on improving this method of connectivity. For instance, I have noted that it requires internet access, as such there are times when the system lags in response. On the other hand, it gives a better screen representation of the layout, which wasn't available with the mobile apps.

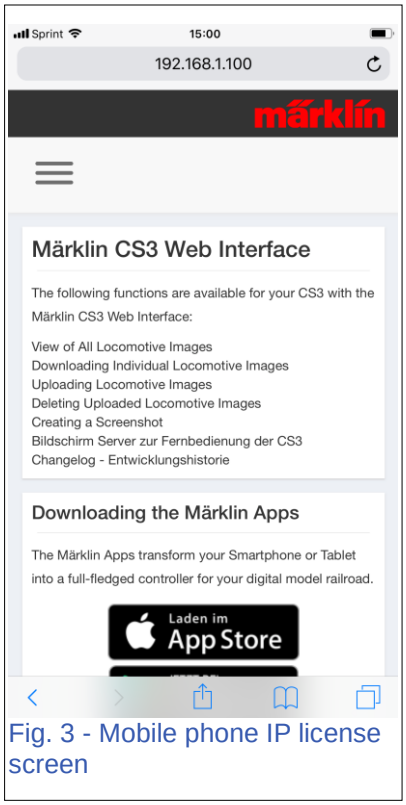


Fig. 3 - Mobile phone IP license screen

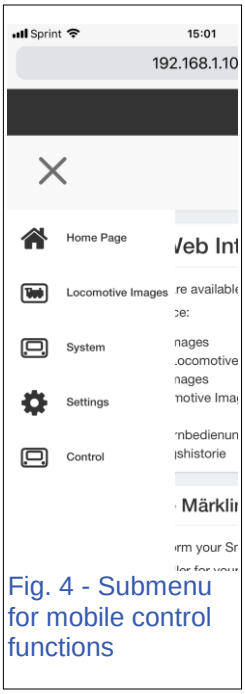


Fig. 4 - Submenu for mobile control functions

Now, on to the new method of connecting to your CS3. You should already be familiar with properly configuring your CS3 for use with your router or wireless router. If not, please refer to Vol 30 No 4 of the Digital Newsletter (the previous newsletter issue). This will allow you to properly retrieve the acting IP number assigned to your CS3.

With the IP number, you can now go to your browser and enter in the number as you would any web address (see Fig. 1). The page shown will be a license agreement with the verification button at the bottom of the page (Fig. 2).

In Fig. 3, I show the IP screen as well as a screen shot of the license page used on an iPhone. Along the top edge will be identical buttons shown previously: Home page, Locomotive Images, System and Settings. A new button can be seen in the right side of this row, the 'Control' button (see Fig.2). On the mobile device, the buttons will be located in a submenu button (see Fig. 4).

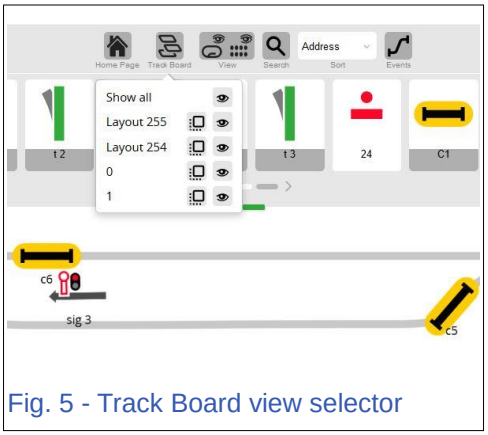


Fig. 5 - Track Board view selector

You can now have control access by clicking on the control button, without the use of the VNC viewer app. Your device will now display the full screen of the CS3, including the pull menus for Locomotives, Articles, Layout, etc.

On mobile devices, the track board layouts may not display. To activate the layout page, you'll need to go to the 'Track Board' selector and click on the icon with the squares to view the layout. Normally, on the CS3 you would click on the 'eye' view icon, so the PC mobile control is slightly different. (See Fig. 5).

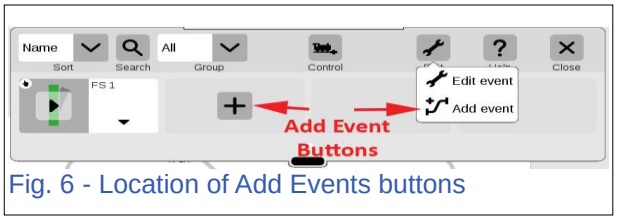


Fig. 6 - Location of Add Events buttons

New Advanced Script Controls

The second major addition found in the new system update is the inclusion of additional control conditions for use in your event scripts. By comparison, control conditions for your memory routes (CS2, CS3) remain the same where you can use track occupation sensors to effect scripts based on track occupation or vacancies. The CS3 update now includes the ability to use turnout settings and signal light aspects to decide if an event script will complete or end, based on which way the turnout or signal is set.

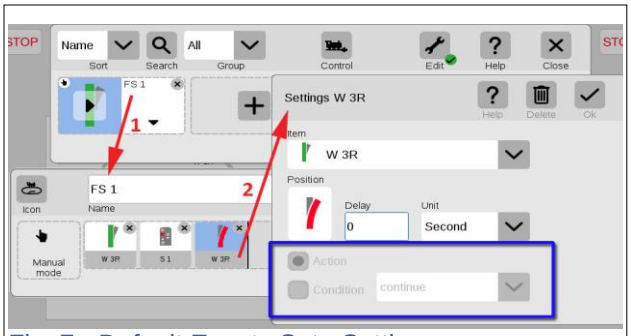


Fig. 7 - Default Events Setp Settings

The use of this feature is considered an advanced configuration capability, so you won't be able to utilize them through the default CS3 system settings. Let's begin by creating an event script and adding either a turnout switch or a signal light event. This is done by clicking on the add events button or selecting 'Add Event' (Fig. 6).

For an existing event script, I have opened the event by clicking on the script entry button (Fig. 7 #1), and accessed the event step settings window for the turnout 'W 3R' (#2). The blue outline displays a new section in the settings window. It contains an option to use the step as an 'Action' or a 'Condition'. By default, the setting is set as an action and the selection area is 'grayed' out. The 'Action' selection treats each step in the traditional sense, it switches the article in the way it is displayed in the script step. While this area is grayed out, you won't be able to alter this method.

Fig. 8 - System Settings>CS3/CS3-1 sub-menu

To access the 'Condition' selection, you'll need to first change a new system setting found in the CS3's 'System Settings' window, within the 'CS3/CS3-1: Systems' sub-menu. Fig. 8 shows the sub-menu where you will need to find the Event-Advanced setting. This sub-menu should look familiar to you. Scroll down the sub-menu until you locate the 'Events-Advanced Mode' setting, then click on the checkbox (Fig. 9).

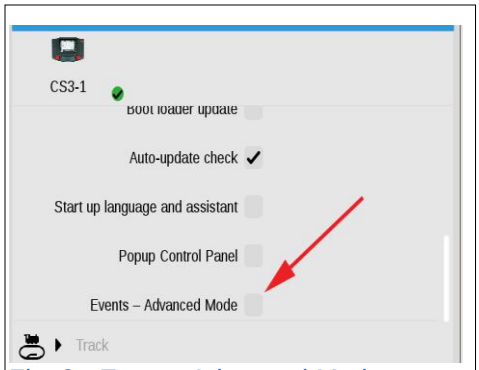


Fig. 9 - Events-Advanced Mode checkbox setting

Once selected, an 'Information' dialog box will appear notifying you that you are configuring the Events settings to an advanced mode (Fig. 10). Verifying the information window will mark the 'Events – Advance Mode' checkbox. Marking this setting will now enable the ability to configure the event step settings to alter the option between 'Action' and 'Condition'. In Fig. 11, I show the options you can choose from in the previous example of 'Settings W 3R'. You can see that with 'Condition' selected, you have an option of setting the condition result as 'Delay' or 'continue.' The meaning of these options will be explained as I describe the logic in the event process.

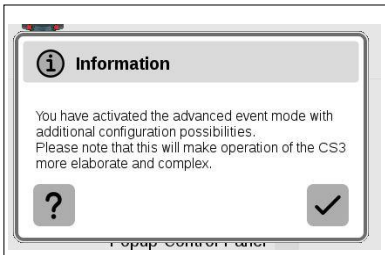


Fig. 10 - Events - Advanced Mode Information window

A condition is a point in the event script where the CS3 looks to see if the setting of the step matches the set position of the item itself. To explain more thoroughly, in the settings window shown in Fig. 11, the CS3 is going to check to see if the turnout 'W 3R' is set for a turn position (displayed in the 'Position' box). The CS3 checks against the settings of the item in either the Article list or the Track Board plan, as they can only be identical (if you switch in one, it automatically switches the other).

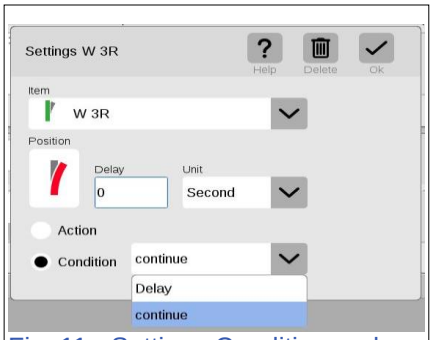


Fig. 11 - Settings Condition and Options

In Fig. 12, I show the status of turnout 'W 3R'. As you can see, it is set as straight and does not match the 'Position' window that is set in Fig. 11. When the position of the script turnout doesn't match, it cancels the rest of the script steps and they will not occur.

If the position of the script item DOES match the article list setting, then the script steps that follow the condition step will proceed to activate. At this point, the setting of 'Delay' or 'continue' take part. If set to 'continue' the next step following the condition will take effect. If set for 'Delay' then setting the 'Delay' and 'Unit' settings will incur a timing delay before the next step occurs.

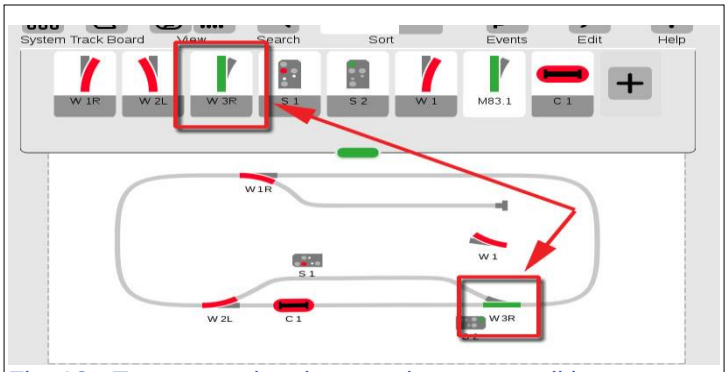


Fig. 12 - Turnout setting that a script step condition must match

Using a signal light as a condition is set in a similar fashion as the turnout settings. The settings for delay and continue are the same as well. In Fig. 13, I show a script setting with a signal light as a condition. When you set a script step as a condition, the script step icon is displayed with a '?'. This lets you know that the step is a condition and won't switch to the aspect displayed. In the illustration, when a train makes contact with C1 (heading in the direction of the bottom red arrow), it evaluates the setting for signal 'S1'. If it matches, then it will set the turnout 'W 2L' to a straight travel through setting.

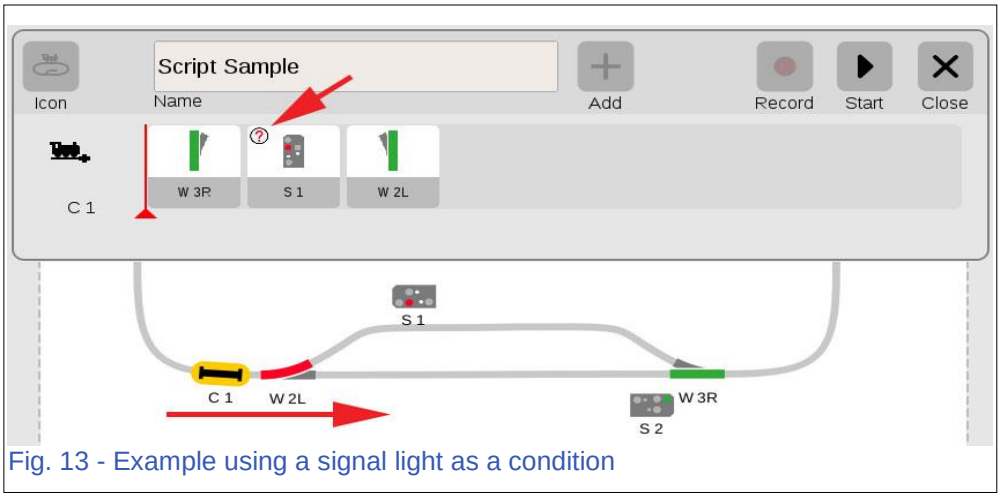


Fig. 13 - Example using a signal light as a condition

Using signals and turnouts as conditions may require special consideration for use and useful application may need some testing. The examples shown are for instructional setup, and may not apply to your layout. Typically, a need arises out of use and this is just another tool that you can take advantage of.

Additional Considerations

With the potential usefulness of using turnouts and signals as conditions in activating script events, there is an important user operation that you should be aware of (and potentially forget) in real world application. This will undoubtedly affect the way your conditions operate.

I mentioned before the Event Step position is matched against the setting of the item used in either the article list or the track board page. It is important you remember the comparison is made within the CS3. The failure of a script condition may occur if you manually switch the physical turnout **on the layout** itself. By physically switching a turnout, you won't be changing the turnout as it is shown on the CS3 (by either the layout page, nor the article list). Physically switching a turnout has no effect on how the CS3 displays the turnout setting. Therefore you would have a mismatch between the CS3 setting and what the turnout is actually set as. As a result, when you use a condition in an event script, the CS3 may believe there is a condition match, when you may have physically turned the turnout. This could be one of those instances where you may only learn by doing. Should I say, "I told you so" now?

Another important discovery, is the fact it is possible to set the turnout as the event script trigger. Just like the example in Fig. 13 uses contact 'C1' as a trigger to activate the script, I found that you can drag a turnout or signal to activate the script. However, I don't currently recommend that you do this. This is partially due to not having any applicable use for this sort of trigger, in my personal opinion. The other is that it has a new setup window, which I found to be more complex without further investigation. I have included the window options on this configuration in Figs. 14 & 15.

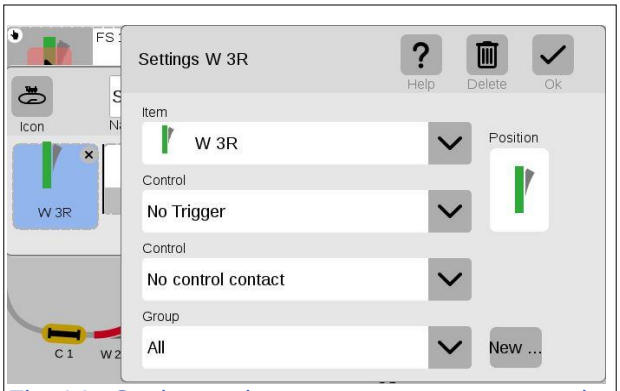


Fig. 14 - Settings using a turnout as an event script trigger

In Fig. 14, you can see that there are two 'Control' settings. The first 'Control' setting has the options displayed in Fig. 15. Unfortunately, I was unclear as to how to apply these as trigger settings. Does this script activate when the CS3 starts? Or when the CS3 is set to 'Go' mode? Unfortunately, I have decided to leave this alone, because it may be more extensive than this article allows. Hopefully, I can shed light on this in the future.

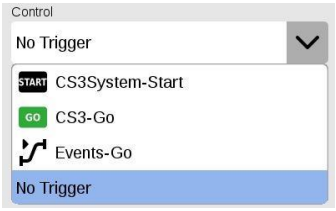


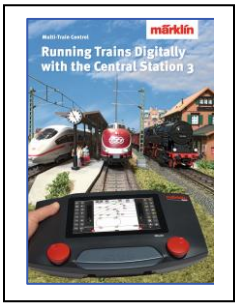
Fig. 15 - Control setting option

Also note that there is a 'Group' setting. It is now possible to gather specific events into useable groupings. This should help you organize events into idealistic areas of concern. For example, you may have specific events that only affect a west end station. It may be useful to have them in a logical group. By clicking on the 'New...' button, you can create a category name you can organize them by. When you create an event script, you can use the 'Group' pulldown menu to assign the event script into.

I hope you get a chance to look into the new features in update 1.3.3 (1). It includes an event script feature that has been requested by many of our users.

As always, have fun!

Curtis Jeung



Available from Märklin Dealers!
Running Trains Digitally with the Central Station 3

This book provides extensive information about the Märklin Digital system. It contains all of the essential information about the new controller Central Station 3. Another focal point is the description of the new generation of decoders. In addition, all of the Märklin Digital system's components are featured with complete explanations of their use on a Digital layout.

191 pages in the DIN A4 format. Version with English text. #03092

Upcoming appearances:

Just Trains Open House
5650 Imhoff Dr, Ste H
Concord, CA
October 7, 2018

Upland Trains Grand Opening
1531 W 13th St, Ste G
Upland, CA
October 20, 2018

Rocky Mountain Hobby-Expo
Denver Mart
451 E 58th Ave
Denver, Colorado
October 27-28, 2018

LGB Day at TrainLand
293 Sunrise Hwy
Lynbrook, New York
November 3, 2018

Trainfest
Wisconsin State Fair Park Expo Center
8200 W Greenfield Ave
West Allis (Milwaukee), Wisconsin
November 10-11, 2018

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