

Version 1.3.3.

New Possibilities and Equipment Features for the CS 3 and CS 3+ (Item Nos. 60226 and 60216) with the Software Update 1.3.3.

The update to Software Version 1.3.3. for the CS 3 comprises the following key components:

- I. Introduction of the Web user interface (Beta version)
- II. Enhancements regarding events
- III. Miscellaneous improvements

I. The New Web User Interface

Note: Currently we are still talking about a test version (Beta version) of this software. This has already been checked extensively by us. Naturally, we were not able to test all possible configurations. If you should discover any errors or unwanted procedures when using this option, we would appreciate it if you could send an error report to the e-mail address

service@maerklin.de

Please give us as exact an error description as possible including a description of your systems (Which PC and router was used? Which browser with which level of software are you using? Which operating system?). A screenshot with the current situation on the monitor can also be very helpful. We can receive e-mails with attachments up to 10 MB in size. We want to thank all testers of this software for their support and hope they will have a lot of fun exploring these new options.

Setting Up and Using the New Connection

Many users have wanted the possibility of being able to fall back on a PC or other modern communication devices such as Smartphones or Tablet PC as entry devices to control their model railroad. On the CS 2, this was enabled by means of two different apps and a PC program that was only available for certain operating systems, however.

For that reason, another way was taken on the CS 3. When the CS 3 and the appropriate other devices are in a common network, a model railroader can then set up a connection to the CS 3 by means of a browser. A browser (also called Web browser) is the computer program that enables the user to call up things such as Webpages or display data.

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Examples of this are programs such as Internet Explorer, Mozilla Firefox, Opera, Safari, Microsoft Edge, etc.

Important: You can decide which of these programs you use and naturally, this depends on the operating system used on your device. However, make absolutely sure that you are using the latest version of the browser in question. We trust that you will understand that we must limit ourselves to the most common browsers. If you should have problems with less common software, then test the connection with the CS 3 using another, more popular alternative from the market.

The following components are required to set up the network:

- The CS 3 or CS3+
- A router (if necessary with WLAN including a Smartphone or Tablet PC)
- A Smartphone, Tablet PC, laptop or PC

You can use a commercially available device from communication technology as a router. This router organizes your small network on a model railroad layout. The CS 3 is connected to this router by means of a LAN cable. For the other devices, the WLAN connection to the router is usually the best solution. There are also routers that offer only a cable-connected solution for all connected devices.

By the way, this router is also required if you are using a CS 3+ as a secondary device. This router can then also take on this task. If necessary, seek out advice in a computer specialty store about the routers that are offered.

Important: The router does not require a connection to the Internet for the operation of this network. Its task is only the organization of the connection between the CS 3 and the other components in the network.

Tip: Extremely high demands are not placed on the router's capabilities. If you are swapping out a router for your own Internet access in order to meet increased demands for data exchange by means of this connection, then the old router can be used very well for the organization of the network around the CS 3.

Always adhere to the following sequence when turning the devices on:

1. The router is turned on.
2. The CS 3 or CS 3+ to be used as the master is the next unit to be turned on.
3. In the last step the rest of the devices can be turned on.

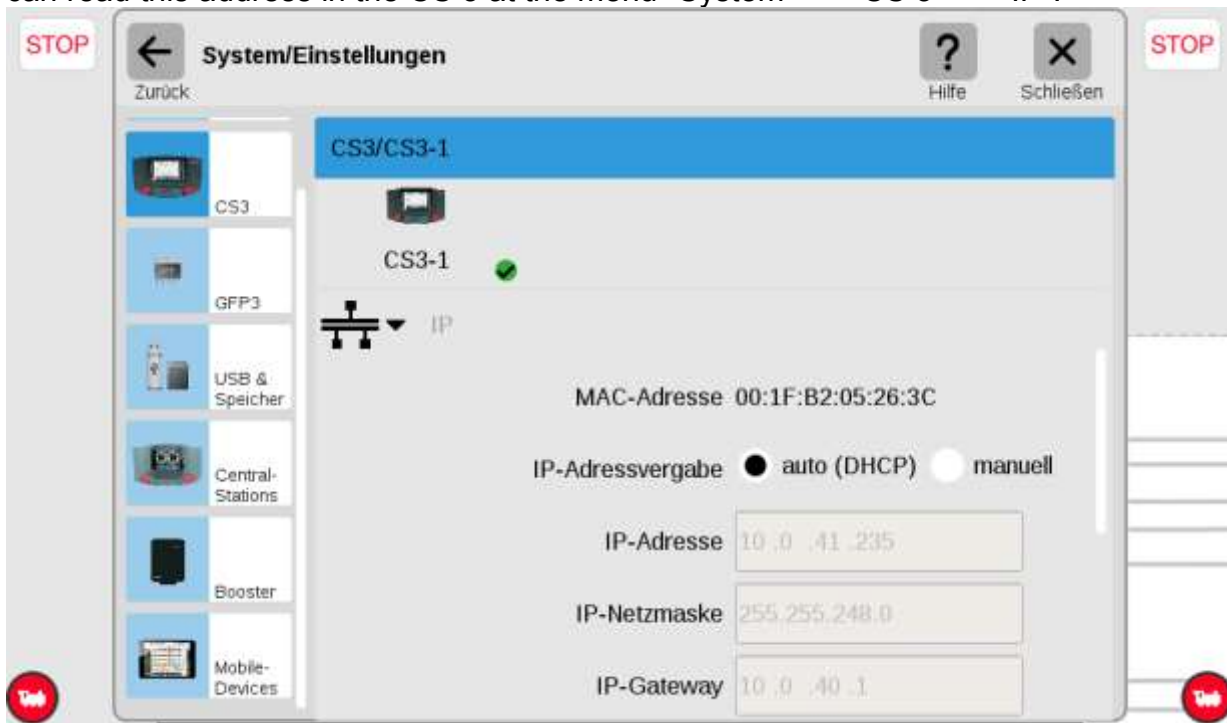
Connection Setup by Means of the Web Server

Call up the desired Web browser to be used below on your PC, Smartphone, or Tablet PC.

You can select two different call-up procedures to call up the user interface for the CS 3 on your device:

1. In the address field on the browser, enter the IP address for the master CS3.
Important: The IP address assignment in the CS 3 should be set at "auto".
2. Call up the master CS3 by means of its dynamic name.

The IP address is assigned to this device when the CS 3 is turned on by the router. You can read this address in the CS 3 at the menu "System" => "CS 3" => "IP".



A dynamic name can also be used with various operating systems. This name includes the character string "CS3-", followed by the 5-digit serial number for the CS 3 and the ending ".local".

CS3-<serial number>.local

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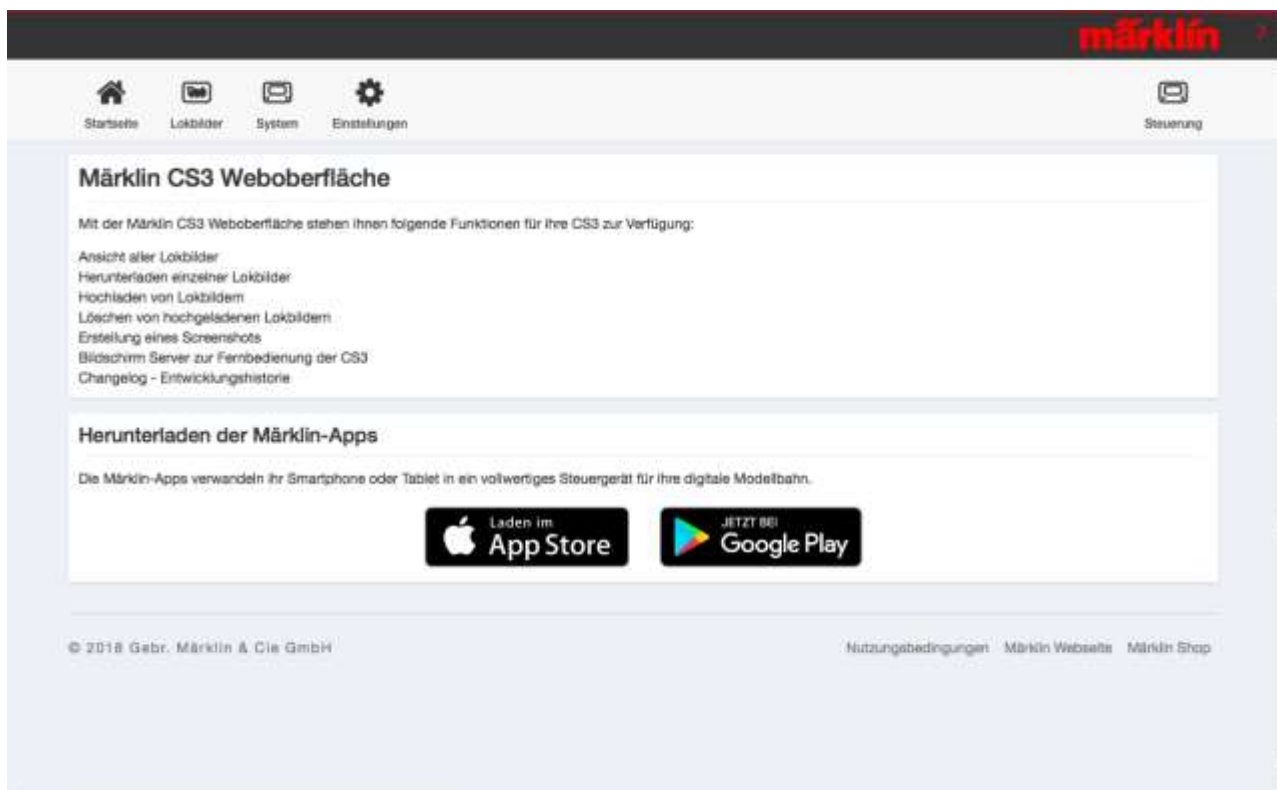
Example: If the serial number were 01234, then this dynamic name would be:
CS3-01234.local

Important: A function guarantee of the second method cannot be assumed since not all operating systems offer this option. The path by means of the IP address is in any event a working alternative.

The CS 3 Web interface appearing on the browser may already be familiar to you from transferring your own locomotive images into the CS 3. In the upper right, you will find the new button "Control". This button will take you into the new program area.

A user interface will appear on your Web browser that is already familiar to you from the CS 3. The basis is the track diagram that is located on the lowest operating level in each case. This system has the following main levels:

1. The track diagram as a central basis element by means of which the other areas in each case can be dragged for use.

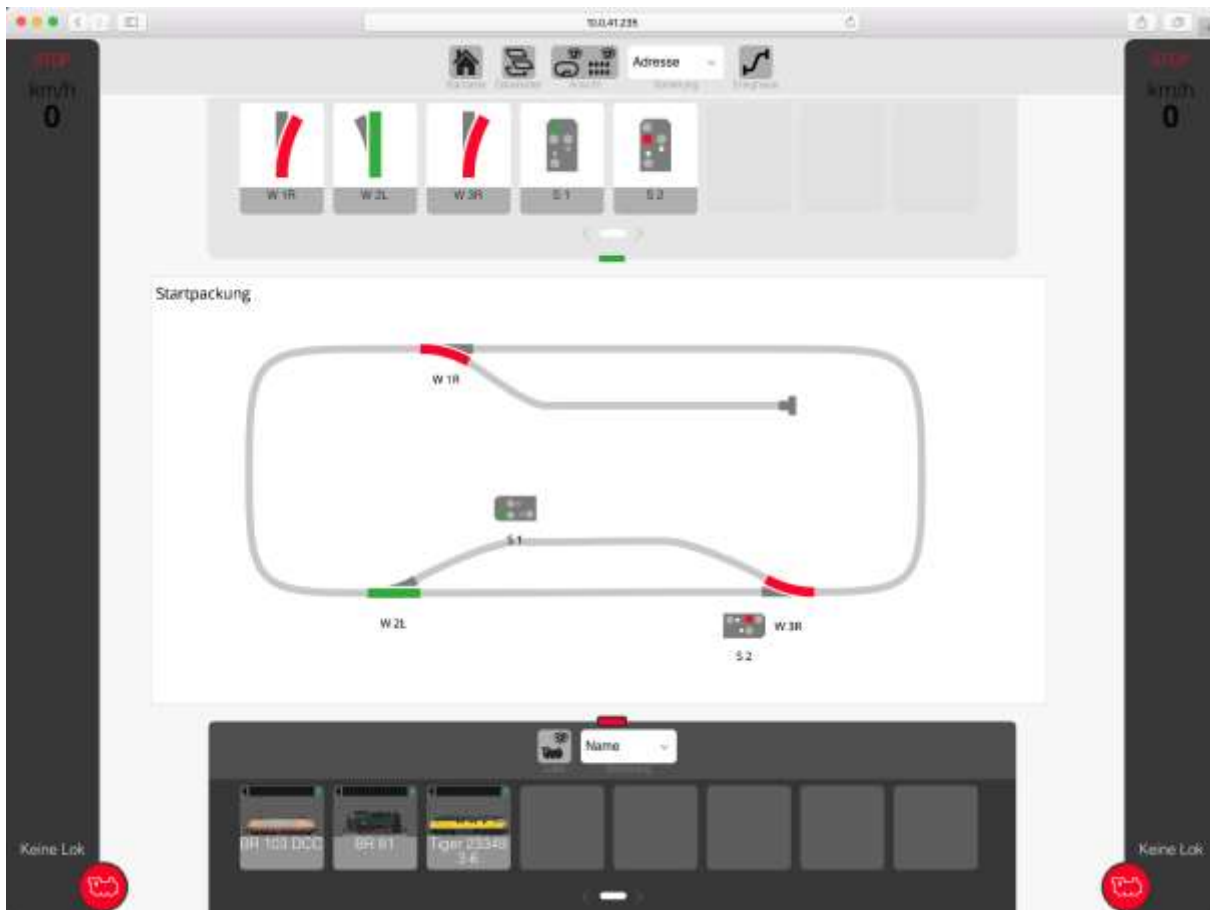


2. A locomotive controller on the right and left that can be enlarged or reduced by

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- means of an element on the lower left and right.
3. The locomotive list that can be opened and enlarged from the lower edge.
4. The solenoid item list that can be opened from the upper edge and like the locomotive list can also fill the entire window if desired.
5. Display of the events that are called up by means of the upper menu bar.



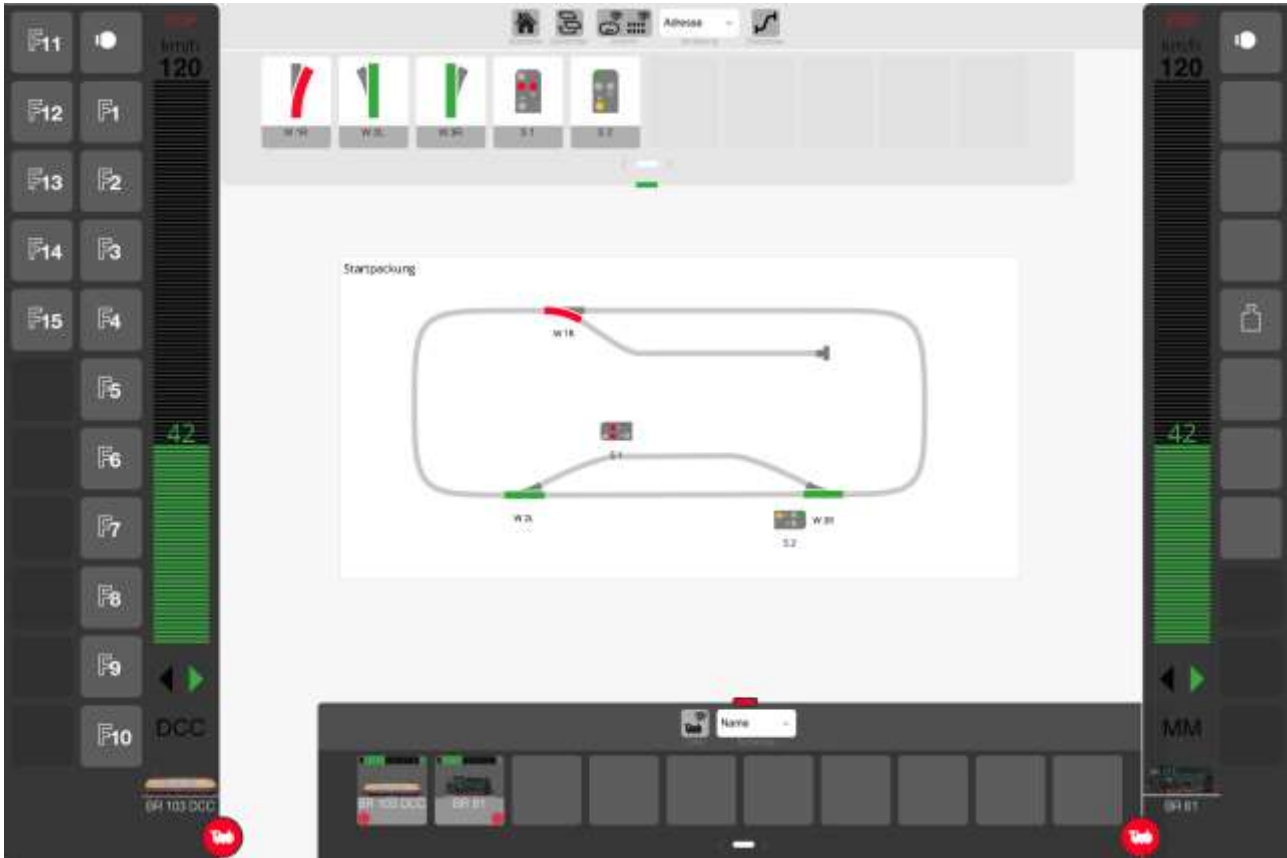
The control of these elements depends on the possibilities of the Smartphone, Tablet PC, laptop, or PC used by you. Devices with a touch-sensitive screen (such as on a Tablet PC) are controlled with the same operating movements as on the CS 3.

A mouse is usually used on other devices. Things such as solenoid items are switched by clicking on the appropriate elements, locomotive functions are activated, or a locomotive is given a new speed. By pressing the left mouse button and at the same time dragging the cursor to the left or right side, things such as locomotives from the locomotive list can be placed on the locomotive controller on the right or left. The scroll wheel on the mouse is

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used to vary the size of the diagram for this.



Important: This user interface on your additional device is used only to control these products. The configuring of decoders, setting up new locomotives or solenoid items, and events or changes to the track diagram, etc. cannot be done this way. This is done only with the CS 3 that is set up as the master!

Auxiliary devices are used solely to operate the layout. The presentation on the screen depends on the maximum pixel value that can be displayed on your device and the size and shape of the browser window selected. How many locomotives for example that are displayed in the locomotive list, can be changed by changing the size of the browser window.

On large monitors, it can make sense to open several browsers and thus have different user interfaces available next to one another. This will give you an additional control area optimally matched to your wishes.

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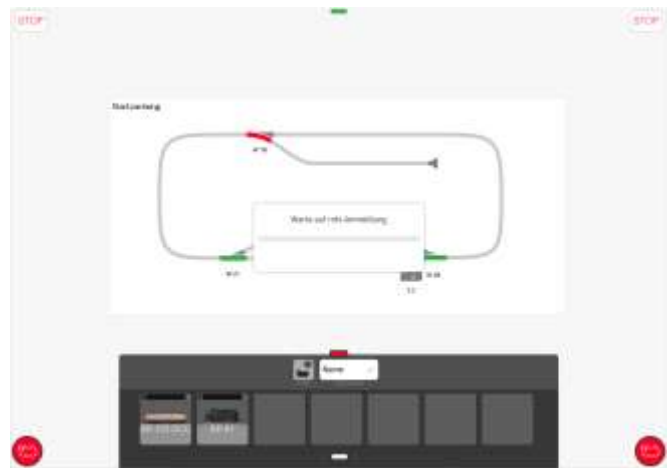


The sorting filters familiar from the CS 3 are useful when displaying the locomotive list and the solenoid item list. If the solenoid items or locomotives in the locomotive list do not all fit on the currently available user interface, the system will automatically generate additional pages that can then be selected as an option.

By the way, currently running mfx registrations are also displayed next to the CS 3 on the browser. You are thus always informed about the current progress of this registration.

Notes about Operation

The connection between the CS 3 and the auxiliary input device can be interrupted by fading in a screensaver or by the browser itself (after a certain time without input at the browser). When operation is resumed, the CS 3 must then make all data from the auxiliary device available again. This process can take some time almost like a starting up operation. It is also not out of the question that the basic screen and not the last user interface appears on the browser. Therefore, if possible deactivate a screensaver that is in use. If the auxiliary device is extensively embedded in the operation of the trains, such a reconstruction of the user interface is not generally necessary. If your browser should offer the option of influencing such a shutoff in the event of inactive input, you should use this option by all means.



II. Enhancements Regarding Events

The CS 3 in its previous form can already cover the wishes of the overwhelming majority of model railroaders. There is, however, a small group of model railroad fans, who want to implement very sophisticated safety measures and automatic circuits on their model railroad. There are now other configuration options for this group. These options allow an even more comprehensive automatic operation. However, very extensive knowledge and experience in the realization of such algorithms is necessary. We hope you will understand that these circuits and procedures can only be done on your own. It makes no sense for a specialist to set up these procedures here. For in the event of a malfunction you will have no way to troubleshoot the cause of this malfunction.

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Therefore, please use these options only if you have the requisite technical knowledge. Our seminars are also not in a position due to the limited time of a two-day training session to present these topics fully in those sessions. This topic is too complex for this. We hope you will understand.

Despite that, here is a short overview for your information of the enhancements that have now been implemented for the display and use of events:

- **Grouping Events**

It is possible to create several groupings of events. This assignment is done by the user. You can then look specifically for these individual groups.

- **Improved Display of Dependencies**

Events can already be integrated in other events. In order to track their function better, their content is now also displayed on request when the listing for this event is touched for longer amount of time. Tracking the procedure is thus potentially easier.



- **Enhanced Search Criteria**

Using the search function, a search can be done by more than just the name of an event. It can also be done by elements included in that event. For example, it is thus now possible to search all events in which a particular turnout is switched. This facilitates things such as troubleshooting.

- **Blocking, Interrupting, Halting Events**

The control of events has been enhanced to influence ongoing procedures.

The activation of new events is prevented with the command "Block Events".

Processes in progress are still executed.

All ongoing events are stopped with the command "Interrupt Events". Recurring events are also stopped this way.

The further execution of events is interrupted with the command "Halt Events". After release has been given, the processes are continued from this stopped position.

- **Additional Elements in Events**

Various triggers now enable access to the reboot or abort conditions. Here we are talking about the following commands:

System start	as Trigger
Events Go	as Trigger
GFP go	as Trigger
Event Halt	as Action
GFP stop	as Action

- **Enhanced Mode**

Previously things such as switching turnouts were considered as an action in an event. This command was carried out accordingly in a sequence of steps. Now, after activation of the enhanced mode there is also the option of defining such an input as a condition. This means that a particular command sequence or event is carried out when a turnout or a signal is currently in a particular setting. The current status of feedback contacts can also be checked in this way and appropriate command sequences can be activated.

Important: The basic requirement for the function of this additional option is that all solenoid items be controlled only by means of the digital system. Any other influence can otherwise cancel the entire system.

III. Miscellaneous Improvements

In recent months, we have received various comments again from our customers about bugs, shortcomings, and also suggestions for improvements. We would like to thank all of you for this. Appropriate improvements were implemented and built into this update as far as was possible for us in the interim. We hope you will understand that particular wishes mean in part many extensive interventions in the entire system and that therefore could not be taken into account at this time. We will make up for this as fast as possible in one of the coming updates. We hope you will understand.

We hope you have a lot of fun exploring the new possibilities of your CS 3.

Your Märklin Service Team