Das Steuerungsprogramm

WIN - DIGIPET

Version 2018 • Premium Edition

Update-Information 2018.1

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1. Summary

This Update Version 2015 International is a Free-Of-Charge Add-On for your **Win-Digipet 2018**.

The purpose of this document is, to describe all innovations of Version **Win-Digipet 2018.1** and to explain in detail how to use all new features; similar to an annex of your User Manual, which is already provided to you with Version 2015 in electronical version.

In addition the update contains also bug fixes for errors in the program. This will not be listed in detail, if these changes do not affect handling and functionality of the program.

It is required, that you are familiar with usage of the program **Win-Digipet 2018**.

For details, please check your manual of **Win-Digipet 2018**.

In case of further questions, don't hesitate to call the Hotline (Mondays, from 08.00 pm – 10.00 pm via +49-(0)172 – 20 11 009) or post your message in the International Forum of Win-Digipet (www.windigipet.de).

If not noted separately, all information is valid for all Digital Systems and model railroad scales which are supported by **Win-Digipet 2018**.

This document was created to our best knowledge. We apologize for any mistakes which could occur. In case you notice any mistakes, please bring them up on above mentioned contacts. Corrections will be made after investigation.

We are not liable for any eventually damages, which might – directly or indirectly – occur by using the software or this document.

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2. WIN-DIGIPET 2018.1 - INSTALLATION OF THE UPDATE

Before you install the update **WIN-DIGIPET 2018.1** the Version 2018 has to be installed according to chapter **1.3** of the **Win-Digipet 2018** manual.

We assume that you have installed **Win-Digipet 2018** in the default directory „C:\WDIGIPET“ on your computer (resp. C:\WDIGIPET_SMALL).

If you have used a different installation directory you have to select this during the update process.

The different versions of the Update 2018.2 for the Premium Version resp. the Small Version can be found on the Win-Digipet website under Download – Updates.

Fig. 2.1 Red USB stick with the premium version of Win-Digipet 2018

The Update 2018.2 Premium Version is only executable with the red Original Win-Digipet 2018 USB-Stick – Premium Edition, the Small version only with the yellow USB-Stick.

It is important to select the correct installation directory during the update process (Default: C:\WDIGIPET resp. C:\WDIGIPET_SMALL).

Already recorded data will not be overwritten!

2.1 Data backup

If you have used Version 2018 before, you should make a backup of your data **before the update** according to section **2.2.3** or automatic backup according to section **3.12** of the manual of version 2018.

2.2 Automatic download and installation of the update

A very comfortable way to download the update and install it afterwards is to use online update mechanism of the Startcenter. Using this new program and data files can be downloaded from the **Win-Digipet** website for the purpose of updating the program.

To access the online update open the Startcenter and switch to the index card ***„Options/Help“***. Using the button ‚Update for program files‘ you can open the update window.

In this dialog you can search for available updates on the **Win-Digipet** server and install them or you can process previously downloaded update files from www.windigipet.de.

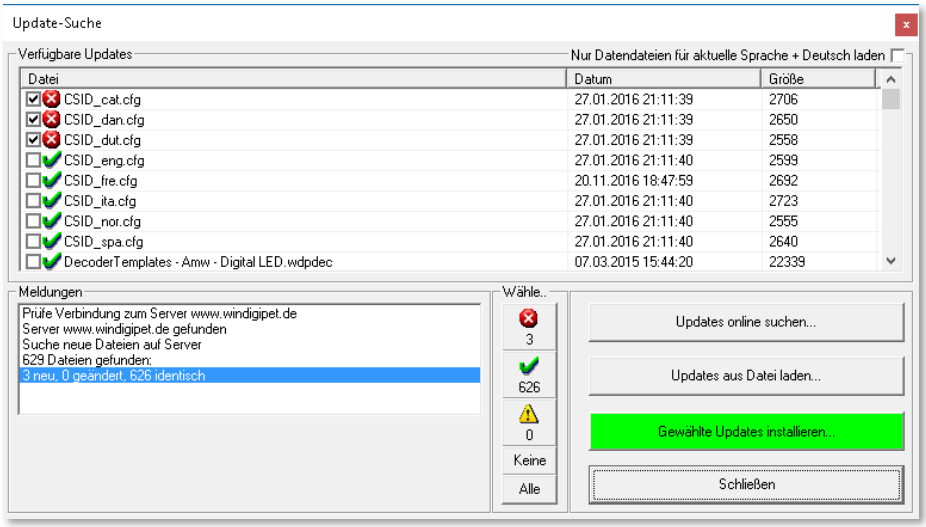


Fig. 2.2 The update dialog

After selecting the desired files you can start the installation, using the button ***‚Install selected updates... ‘***.

Win-Digipet identifies if the possible update files are already installed/missing/older on the computer.

For this online update you need of course an active connection to the internet.

If your computer is not connected to the internet you need to download the updates manually from our homepage.

2.3 Download of the update 2018.1 from the Win-Digipet Website

On the Win-Digipet website you can find under Downloads the following versions of **Win-Digipet 2018.1**:

- **WIN-DIGIPET Update 2018.1 Premium Edition** (WDUP_2018_1.exe)
- **WIN-DIGIPET Update 2018.1 Small Edition** (WDUP_2018_1_Small.exe)

Please download the version suitable for your product.

2.4 Installation of the update 2018.1

Download the update from the website (WDUP_2018_1.exe or WDUP_2018_1_Small.exe) to you Win-Digipet installation directory (by default C:\WDIGIPET resp. C:\WDIGIPET_SMALL sein).

Execute this file by double click on its icon (e.g. via Windows-Explorer). The update file is self-executable and will be installed to the selected directory (Default C:\WDIGIPET resp. C:\WDIGIPET_SMALL). After this you delete the file WDUP_2015_2.exe resp. WDUP_2018_1_Small.exe without any consequence.

2.5 Start of Win-Digipet 2018.1

Now you can start **Win-Digipet** as usual.

After the start **Win-Digipet 2018.1** you can see the splash screen with the new version number. [1]

After the complete start of **Win-Digipet** you can see the track diagram as usual.

Abb. 2.3 Info screen of Win-Digipet

2.6 Regular Online-Updates

The program provides an online update mechanism to update important program data etc..

We suggest to the execute the online update via the Startcenter regularly because the program data provided via the online update is not part of the update 2018.1 and will also be changed/added between update versions. This program data can be:

- updated language files
- updates decoder templates
- updated symbol tables (also translated into the languages)
- crane definitions (also translated)

[1] Picture from <Help> <About>: The last three digits of the version might vary from the screenshot.

Users with not internet access on the railroad PC can also download a data update package from the download section of the Win-Digipet website to an USB stick and import this update package using the Startcenter.

For further information regarding the online update read section 2.2.6 of the manual.

3. General

3.1 Digital systems / Hardware

The number of digital systems and other hardware on the model railroad market is ever expanding. Due to this, new digital systems will be included in Win-Digipet from time to time. The integration of these systems requires the will for cooperation by the system´s manufacturer, because without the knowledge and support of the manufacturer this is not possible.

Win-Digipet 2018.1 has been extended in its support of digital systems as follows.

3.1.1 Number of digital systems

For **Win-Digipet 2018 Small** the number of usable digital systems has been increased from two to four (Premium version twelve.

3.1.2 ESU ECoS (ECoS I, ECoS II, Central Station I reloaded)

Using the current firmware version of these digital systems of the ECoS family produced by ESU programming on the main track is now possible via PC.

The write and read (Railcom necessary) on the main track has been implemented in **Win-Digipet 2018.1** for this system and is available in the decoder programming functionality.

3.1.3 Lenz LZV 200

The company Lenz offers a new digital system called LZV 200. Starting with **Win-Digipet 2018.1** this digital system is available in **Win-Digipet**.

Features usable in **Win-Digipet**	
Track protocol	DCC
Locomotive addresses	1-9999
Solenoid device addresses	1-2048
Special functions per address	F0-F28
Port	USB
Included since **Win-Digipet** Version	2018.1

Fig. 3.1 The LZV 200 of Lenz

Further information can be found on the manufacturer´s website: www.digital-plus.de

3.1.4 Blücher GBM16XN Version 2.x

The occupation detector GBM16XN, Vers. 2.X as a 16-channel RailCom®-enabled track occupation detector for the digital model railroad systems, which can be connected with extension ports to the RS-Bus, XPressNet or LocoNet of another system. It can also be used standalone via USB.

When connecting via USB or LocoNet the module can also be used for the detection of RailCom® train numbers.

For the USB port you need to install the manufacturer´s driver. This driver creates a virtual serial port. The port number can be identified using the port utility in the Startcenter of **Win-Digipet**.

Further information can be found on the manufacturer´s website:
www.bluecher-elektronik.de

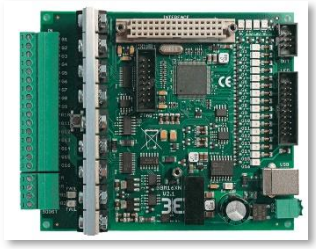


Fig. 3.2 The GBM16XN

Features usable in **Win-Digipet**	
Feedback system	Depending on used interface
Number of feedback contacts	Depending on used interface
Port	USB, XPRessNet, RS-Bus, Loconet
Included since **Win-Digipet** Version	2018.1

3.1.5 Watch-Dog

Using external WatchDog modules you can ensures that in case of lost interfaces connections between your computer and the digital systems all traveling train will be stopped (see manual 2018, section 14.20). In version 2018.1 the configuration dialog in **Win-Digipet** has been changed.

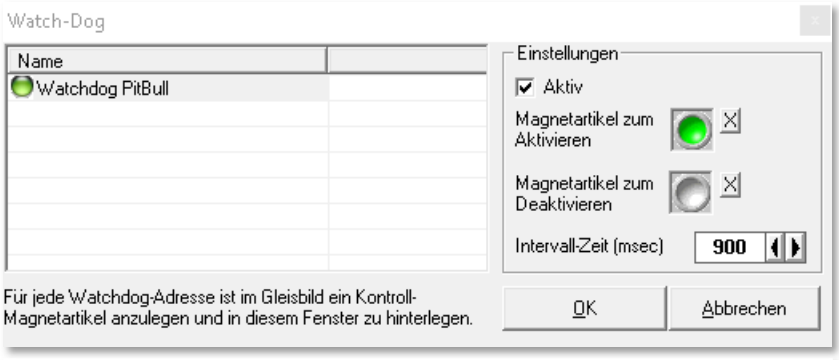


Fig. 3.3 The Watchdog config dialog

A control button/switch for each WatchDog has to be installed within the track diagram (normally two-aspect symbol). The solenoid device address of the WatchDog has to be

assigned to this symbol. You can also register multiple WatchDogs within the dialog and assign different names to them.

The according control button/symbol can be dragged to the configuration dialog. You can then select which solenoid device state shall be used to trigger the On and Off commands within the WatchDog.

It was not possible to convert old WatchDog configurations from previous versions.

Existing WatchDog configurations have to be reconfigured!

3.1.6 BiDiB

Until now, it was necessary in the case of a decoder-exchange (node-exchange) to select the new decoder/node at all places where the old node has been used.

In the window “Status digital systems“ you can now see the UIDs of all nodes used within your project which are not found at the bus at the moment. You can then select to replace these old decoder references with a new existing ones.

3.1.7 Doehler & Haas Feedback modules

The train number detection for Selectrix digital systems in **Win-Digipet** does now also work with the new feedback modules provided by Doehler & Haas. The decoder can used beside normal track occupation detection also for SX1- and RailCom® train number detection

Further information can be found on the manufacturer´s website:
www.doehler-haass.de

3.1.8 Digital system DCC++

The digital system DCC++ is a Do-It-Yourself system based on an Arduino (UNO/MEGA) in combination with a so called motor shield. With few components you can build a simple DCC digital system for a low price.

The connection to the PC is realized via USB port or via Ethernet (Ethernet shield required additionaly).

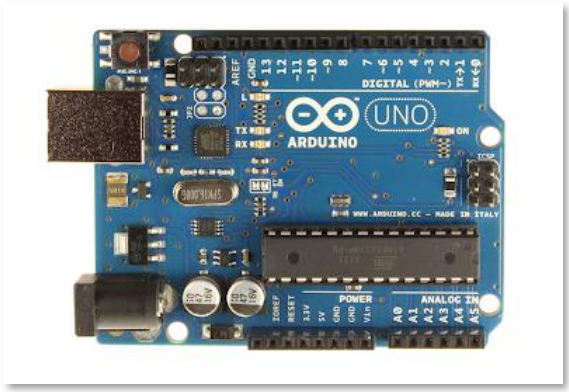


Fig. 3.4 The Arduino Uno

In the internet you can find several videos and documentation regarding the assembling and operation of this digital system.

Further information can be found on the website:
https://github.com/DccPlusPlus/BaseStation/wiki/DCC-Introduction

Features usable in **Win-Digipet**	
Port	USB or Ethernet
Included since **Win-Digipet** Version	2018.1

3.1.9 RZTec Speedbox

The product Speedbox produced by RZTec can be used for the speed measurement/calibration of locomotives. The speed is measured using reflex light barriers when the train passes the measurement system. The result are available in the speed measurement dialoges in **Win-Digipet**.

For the USB port you need to install the manufacturer´s driver. This driver creates a virtual serial port. The port number can be identified using the port utility in the Startcenter of **Win-Digipet**.

Fif. 3.5 The RZTec-Speedbox

Further information can be found on the manufacturer´s website: www.rztec.de

3.1.10 LoDi-System

The LoDi-System produced by lokstore digital offers a hole family of PC interfaces which are available in Win-Digpet. These are:

- The **LoDiRektor**
  This component generates the track signal and controlsl the connected boosters. You can also connect a LoDi-Trainspeed or a µCon-Railspeed-Modul to its bus.
- The **LoDi-S88-Commander**
  is used for interfacing feedback modules
- The **LoDi-Shift-Commander**
  can be used for special LoDi switch decoders (als for room light etc.)

All components are connected via Ethernet to the PC.

Further information can be found on the manufacturer´s website:
www.lokstoredigital.de

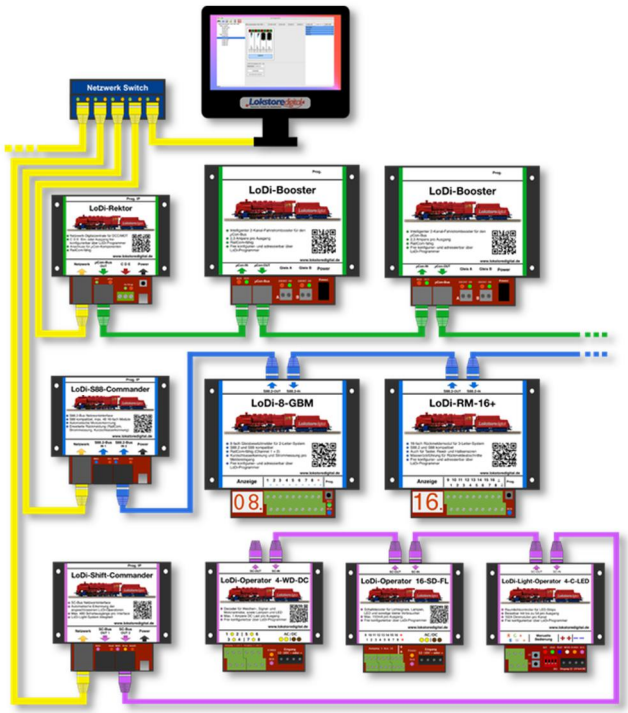


Fig. 3.6 The LoDi-System

4. System settings

4.1 External software „CollectioN“

The software „CollectioN“ of modellplan has been reprogrammed by the manufacturer in Version 2018. Due to the new program and database of Collection the old direct database connection is not available for **Win-Digipet** any more. Old Collection versions (up to version 2017) are not affected by these changes.

Access to the data of the new version is only possible if single or grouped records have been exported from Collection 2018 ff. to a XML data file. These files can be used in **Win-Digipet** afterwards. These XML- as well as according PNG-picture-files are exported by

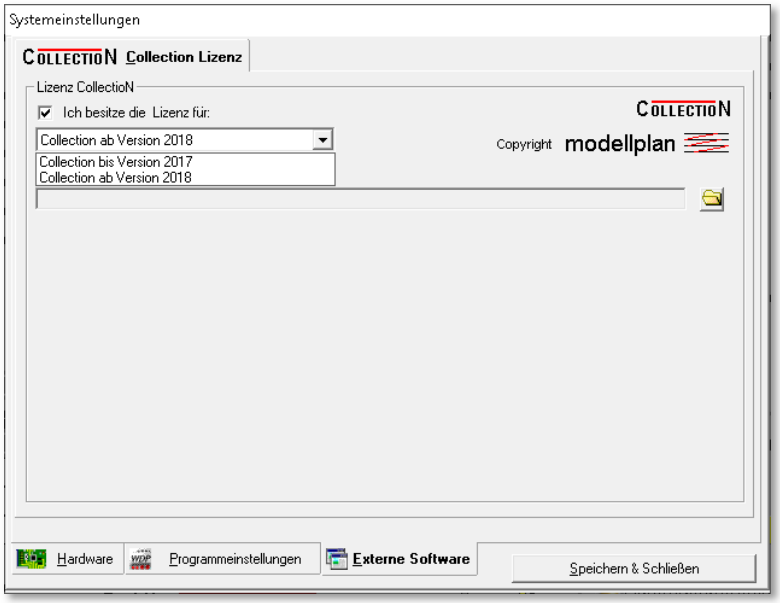


Fig. 4.1 The config dialog for „CollectioN“

Collection to a specific directory.

In the system settings of **Win-Digipet** you can now select that you own Collection 2018 and select these export directory.

You can now uses the pictures and descriptions of all previously from Collection exported vehicles in the **Win-Digipet** vehicle database on the index card CollectioN. As prerequisite the most recent update patch of Collection 2018 needs to be installed.

4.2 Direction changes of trains

If you control a train with several locomotives via the throttle of your digital system manually you can control normally only the main/leading locomotive of the train.

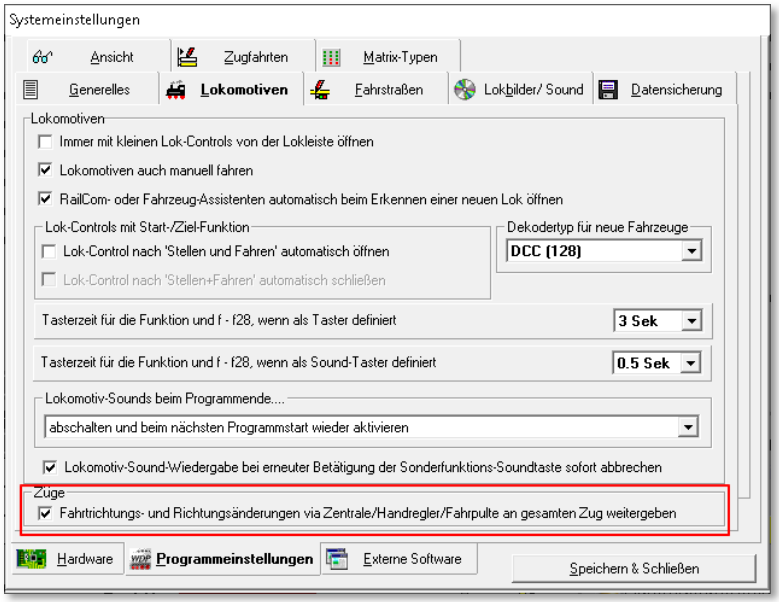


Fig. 4.2 Direction and speed changes of trains

In the system settings of **Win-Digipet** you can select if you want to transmit such manual direction changes to a locomotives/vehicles of the train. These applies also to speed changes. The decoder speed step of the leading locomotive will be converted to kilometre per hours and the converted to the necessary speed steps of the other locomotives. Of course all locomotives in the train need a valid measurement.

These transmission of speed and direction changes is deactivated while the speed measurement window for locomotives is open.

5. 5. Vehicle database

5.1 Duplicate (clone) vehicles

With the vehicle database you can now duplicate (clone) compete vehicle. These is for example interesting if you own multiple vehicle of the same type and if you do not want to configure all these vehicles in one record.

The function is available in the menu <File> of the vehicle database due the command <Duplicate vehicle>. After a confirmation question the current record will be duplicated.

In the vehicle database afterwards two identical vehicle records are available. Necessary changes regarding decoder addresses or vehicle spefic name etc. have to be made afterwards.

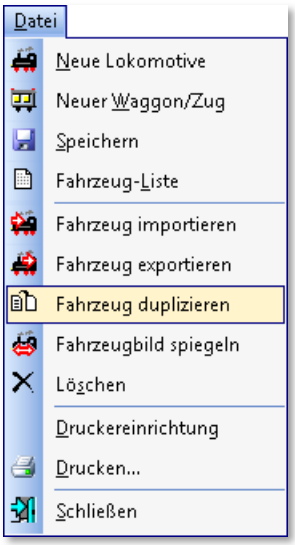


Fig. 5.1 The file menu

5.2 Using pictures from the clipboard

In **Win-Digipet** you can use own pictures from BMP, JPG and PNG files since years. In **Win-Digipet** 2018.1 we added also the possibility to use picture which have been transferred to the Windows clipboard from other programs. Therefor we added on the index card *„ Own pictures (file)“* a button *„ Paste from clipboard“*.

5.3 Invert via RailCom ® detected direction

Some locomotive decoders report the direction via RailCom® due to internal reasons or due to false locomotive wiring inverted.

You can now select within the vehicle database on the index card „Maintenance/Detection“ that RailCom® direction messages for the current vehicle shall be inverted.

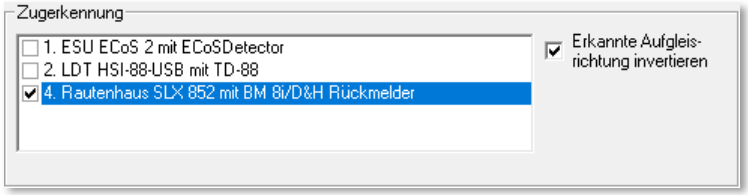


Fig. 5.2 Inversion of detected direction

5.4 External database „CollectioN“

The software „CollectioN“ of modellplan has been reprogrammed by the manufacturer in Version 2018. Due to the new program and database of Collection the old direct database connection is not available for **Win-Digipet** any more. See section **4.1**.

In the vehicle database of **Win-Digipet** you can use the previously exported vehicles.

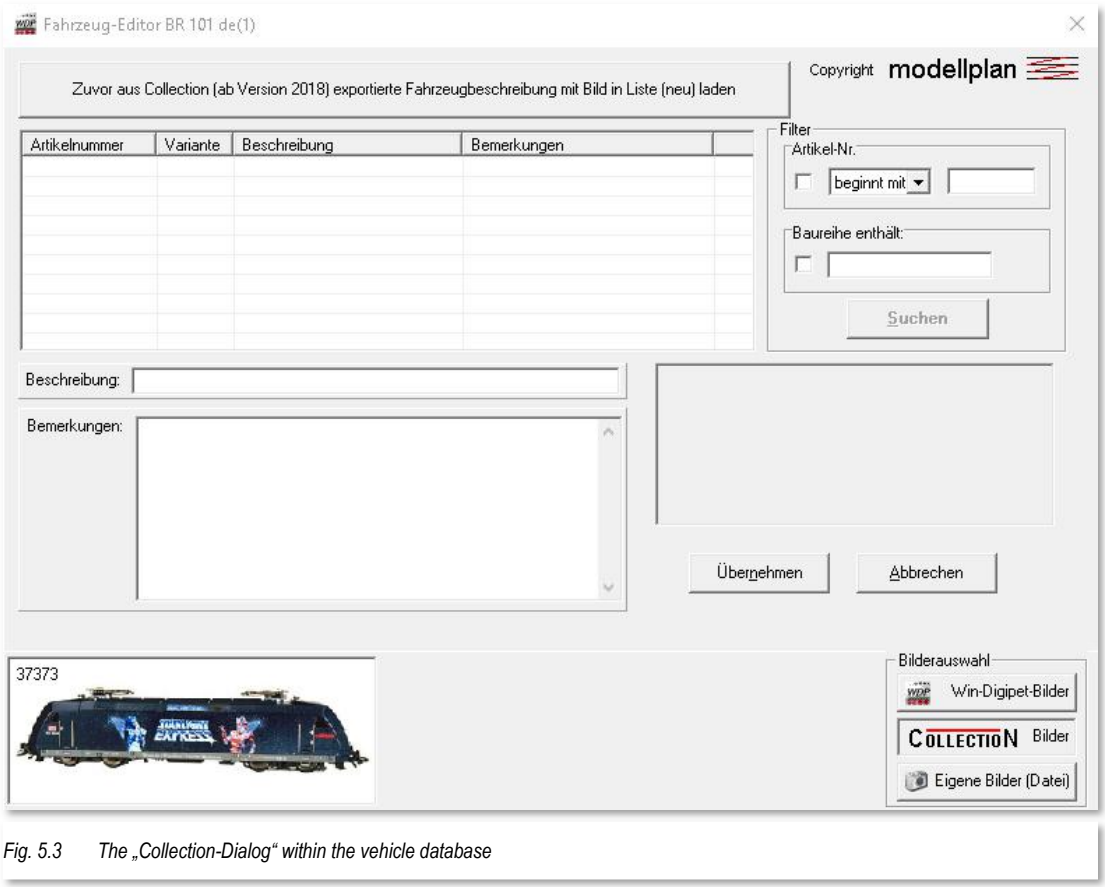


Fig. 5.3 The „Collection-Dialog“ within the vehicle database

5.5 Speed measurement using a roller dynamometer

When using a roller dynamometer you can now select only one driving direction. This now available in the selection box for selecting which speed steps shall be measured.

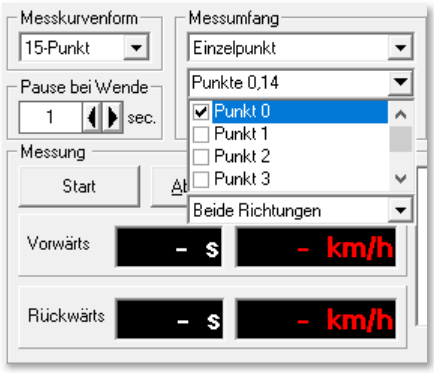


Fig. 5.4 Part of the speed measurement dialog

5.6 Speed measurements using a light barrier

When measuring locomotive speeds using the Railspeed, RZTec or LoDi-Trainspeed with multiple measurement cycles the mean value of all measurement will be calculated and stored later.

When using these measurement systems you can now add one or more feedback contact to ensure that the locomotive will be even stopped if the measurement system fails to report **Win-Digipet** that the locomotive has been passed the measurement system completely.

Please that care, that these contact(s) have been installed far away from the measurement system that even high speed measurement of long trains are still available.

6. Decoder-Programmer

6.1 Integration of the decoder database (DecoderDB)

Starting with version **Win-Digipet 2018.1** we include the data usage from the manufacturer independent decoder database provided by Stephan Bauer. These database provides decoder templates which can updated using the Startcenter. These templates can not be changed. For own templates the template system of Win-Digipet will be used also in the future.

For own templates or templates adaptions, please use the already in **Win-Digipet** available templates. These use the file extension „.wdpdec“. Own templates/changed templates use the file extension „.usrdec“.

Decoder templates from the DecoderDB can be selected in the Decoder Programmer after opening the template selection dialog. Within this dialog (see Fig. 6.1) you can select wether to use templates provided by Win-Digpet or provided by the DecoderDB.

The templates provided by the DecoderDB have another structure than the well known

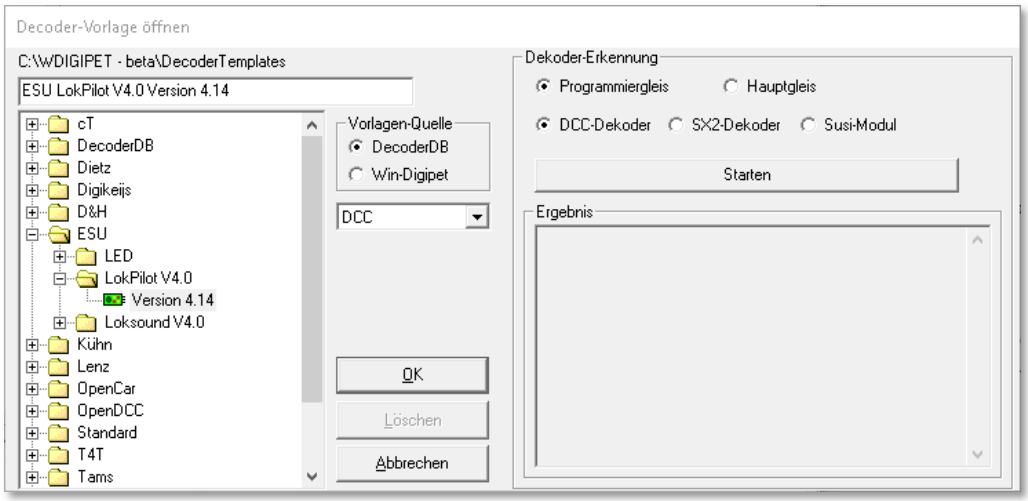


Fig. 6.1 Selecting a template from the DecoderDB

Win-Digipet templates, but they also offer many additional features.

As example we show you the basic settings of an ESU Lokpilot V4.0 DCC. All CVs belonging to its basic settings are grouped on one page. Due to this you can easily review all basic settings at the same time.

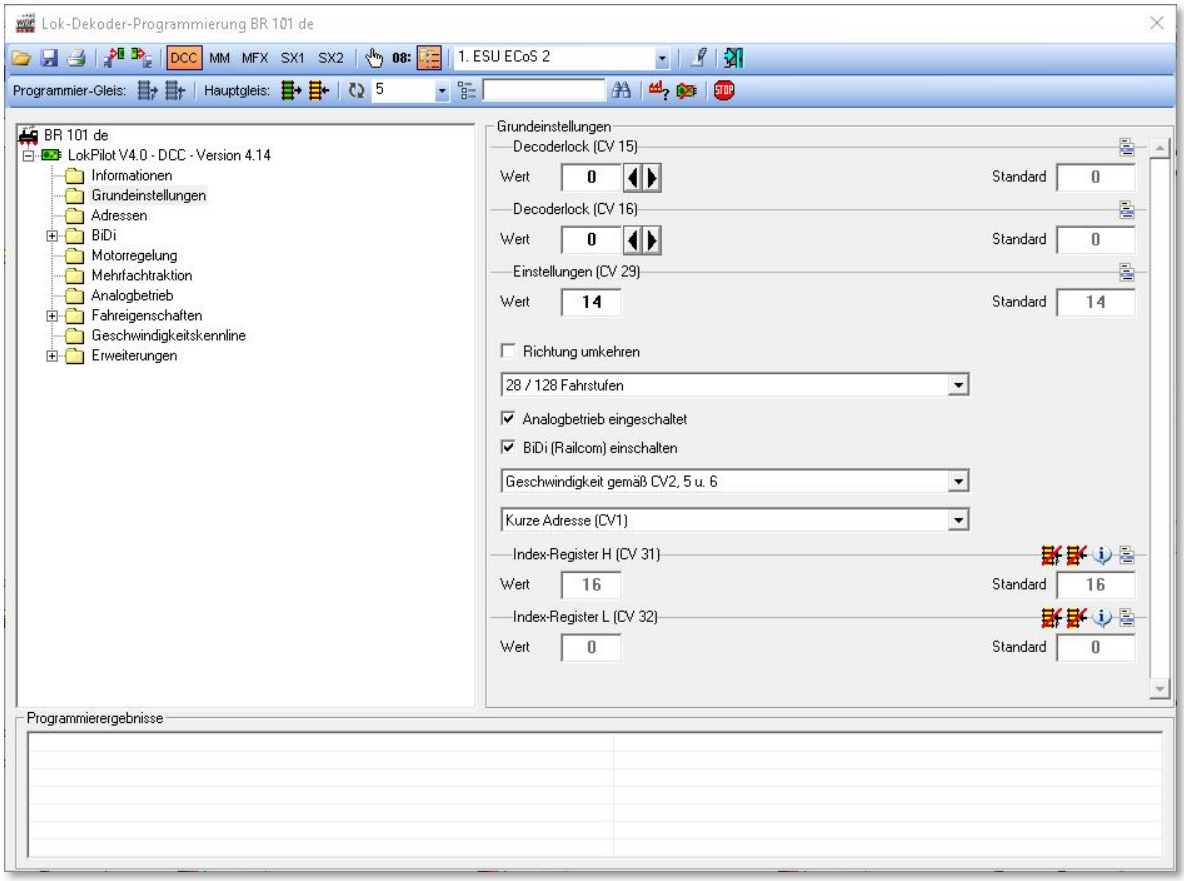


Fig. 6.3 Basic settings of an example decoder

In the sub boxes of some of the CVs (CV = Configuration Variable) additional symbol might be shown:  . These symbol can be used to identify settings which are read-only for example. Explanations for these symbol will be shown in tooltips when moving the mouse cursor over these symbols.

When clicking with the mouse button onto the list symbol you can open a menu where you can issue commands just for these single setting/CV.

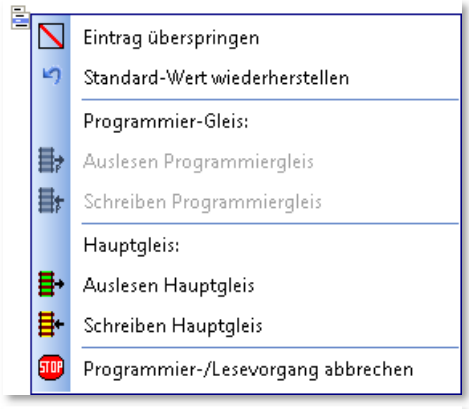


Fig. 6.2 The sub menu of a CV

You have also the possibility to exclude one or more CV/settings from the programming process or you can chose to restore the manufacturer settings for this CV(s). Similar operations are also available in the context menu of the main tree on the left side of the window. These operations will then affect all settings of the complete selected settings node in the tree.

Especially for decoders with hundred of CVs it might be reasonable to include only changed/used CVs in the programming process to recude time.

If a decoder (maybe due to old firmware versions) does not respond to a CV read request you will be asked if you want to:

- Skip this CV this time
- Skip this CV this time and want to deactivate it for the future
- Abort the process

When choosing option 1 or 2 you will be asked if additional read failures in this session should be answered in the same way.

A selection box has been added to the toolbar of the programming window. In this box you can select how many time failed read- oder write attempts should be repeated. Default value is 5. You can choose values between 0 and 9 repetitions.

7. Track diagram editor

7.1 New design for solenoid device configuration

The solenoid device configuration has been completely redesigned in **Win-Digipet** 2018.1. The main motiviation for this step was to make the dialog more independent from the increasing number of digital systems and the accompanying configurations. As additional benefit the addressing and switching sequences are now much more flexible and fully configurable.

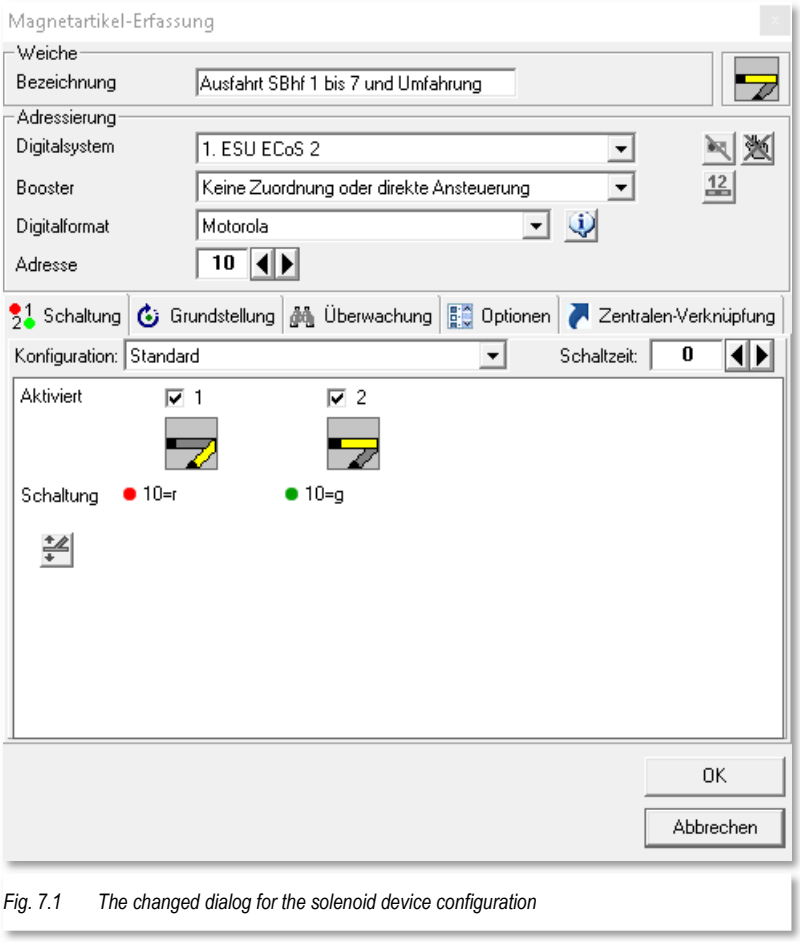


Fig. 7.1 The changed dialog for the solenoid device configuration

The example in the figure shows a simple turnout. The dialog has three main sections. In the upper section you can see the symbol of the solenoid devices and its name. The middle section is used to configure solenoid device addresses, selection of the used digital system, boosters, number of aspects (if relevant) etc.. In the lower section you can see all possible states/switch sequences of the current solenoid device and additional settings. These setting have been categorized onto 5 index cards.

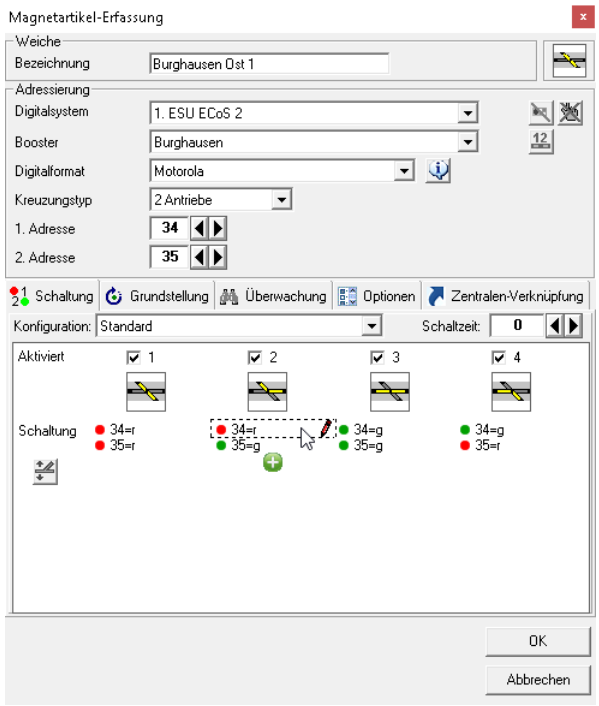


Fig. 7.2 The configuration dialog for a double crossing

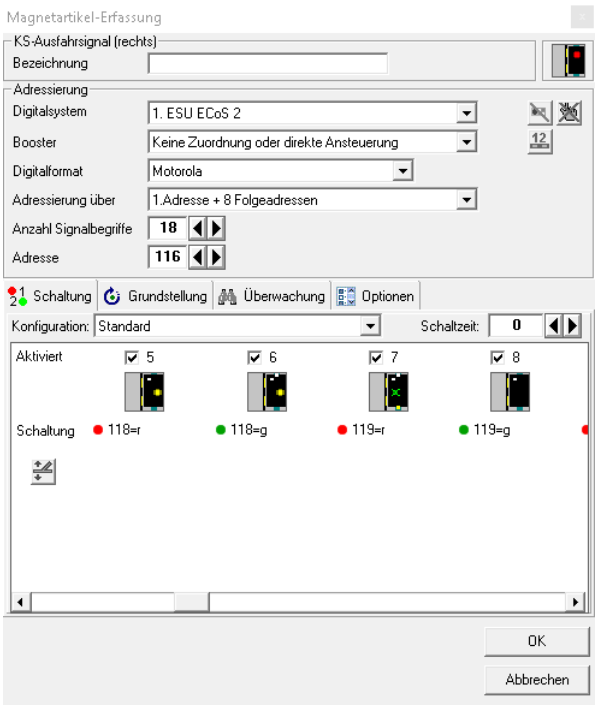


Fig. 7.3 The configuration dialog for a multi-aspect signal

The appearance of the dialog is very dependent on the type solenoid device and the used digital systems/format. The examples in Fig. 7.2 and Fig. 7.3 show the configuration of a double crossing with 2 “motors” and the configuration of a multi-aspect KS signal.

Lets take a look a the several settings.

Description is the name of the solenoid devices used troughout the program. These name is used within tooltips of the track diagram, condition trees, check routines, additional switching s etc..

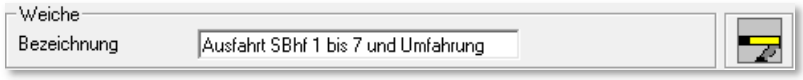


Fig. 7.4 Name/description oft he solenoid device

The section addressing contains several selection boxes as well as some buttons. In the first selection box you select which digital system shall be used to address the solenoid device. If you you have configured Boosters with the Booster management you can select within the next selection box to which one of them the solenoid device is connected.

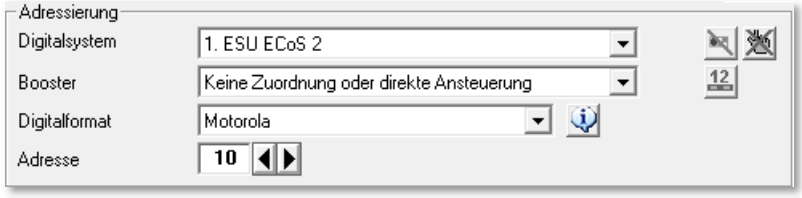


Fig. 7.5 Addressing of the solenoid device

Many digital systems support more than one format/way to control solenoid devices/ accessories. For some digital systems it is necessary to configure the digital format for each address individually within the digital system itself. Please read the manuals of your digital system.

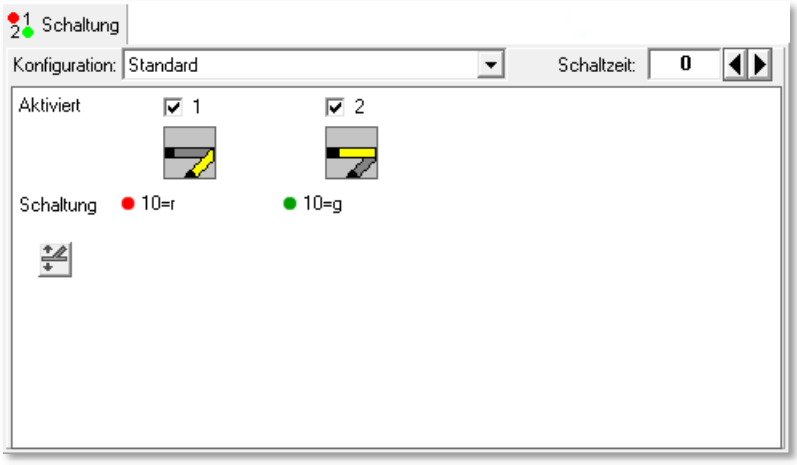
The solenoid device address(es) can be changed using the keyboard or via the spin buttons. For some devices you need to configure how many aspects of the device are used and the number of used addresses

The section is completed by some buttons:

- Virtual solenoid device
  the solenoid device will be marked as “virtual” -> no commands will be issued to the digital system.
- Block manual operation
  If this function is activated the manual operation of the solenoid device within the track diagram is only possible after answering a security question.
- Show all solenoid device addresses
  Within the track diagram the addresses of all solenoid devices will be shown next to the solenoid device symbols.

Let´s take a look at the index cards on the lower section of the window:

- **Index card „Switching“**



IFig. 7.6 The index card „Switching“

Using the listbox “Configuration” at the top of the index card you select depending on the selected digital system/format many predefined switch configurations for your solenoid device.

The rest of the index card is dominated by the graphic represantion of the possible solenoid device aspects and the according switching sequences. On the left side you can find a symbol for automatic repeated test of all activated aspects.

As soon as you start to configure 3-/4-/multi-aspect signals the complexity of the dialog increases significantly.

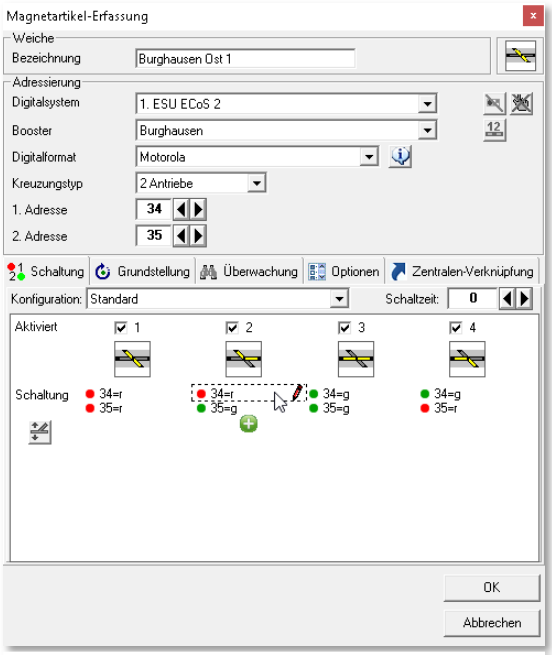


Fig. 7.7 The config dialog of a double crossing with 2 addresses

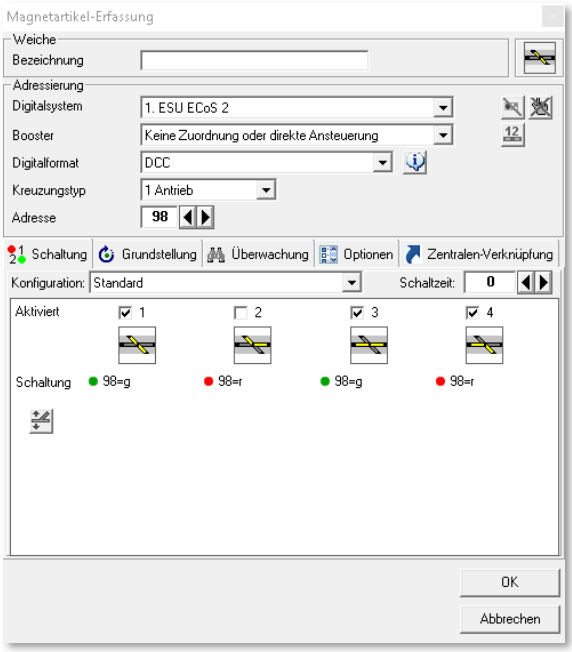


Fig. 7.8 The config dialog of a double crossing with 1 address

Our example shows the dialog for a double crossing with two addreses/actuators. For reach actuator one address needs to be used. You can see for all available states/aspect of the crossing the which addresses will be addressed with the state red or green (maybe +/- for other systems). When moving the mouse button over on this address/red-green label a pen symbol will appear and by clicking you can then select other commands. You can also add switching pauses between several commands if this is needed by your decoder.

The second example shows also double crossing with 1 address. In this case the commands for state 1 and 3, resp. 2 and 4 are identical. In addition state 2 has been deactivated (see Fig. 7.8). If you deactivate a state the program will not allow to switch this state in manual or automatic operation. This might be usefull to block unwanted ways through your layout.

The next example shows a multi-aspect KS signal.

For multi-aspect signals you can define up to 18 aspects. You can use in this case up to

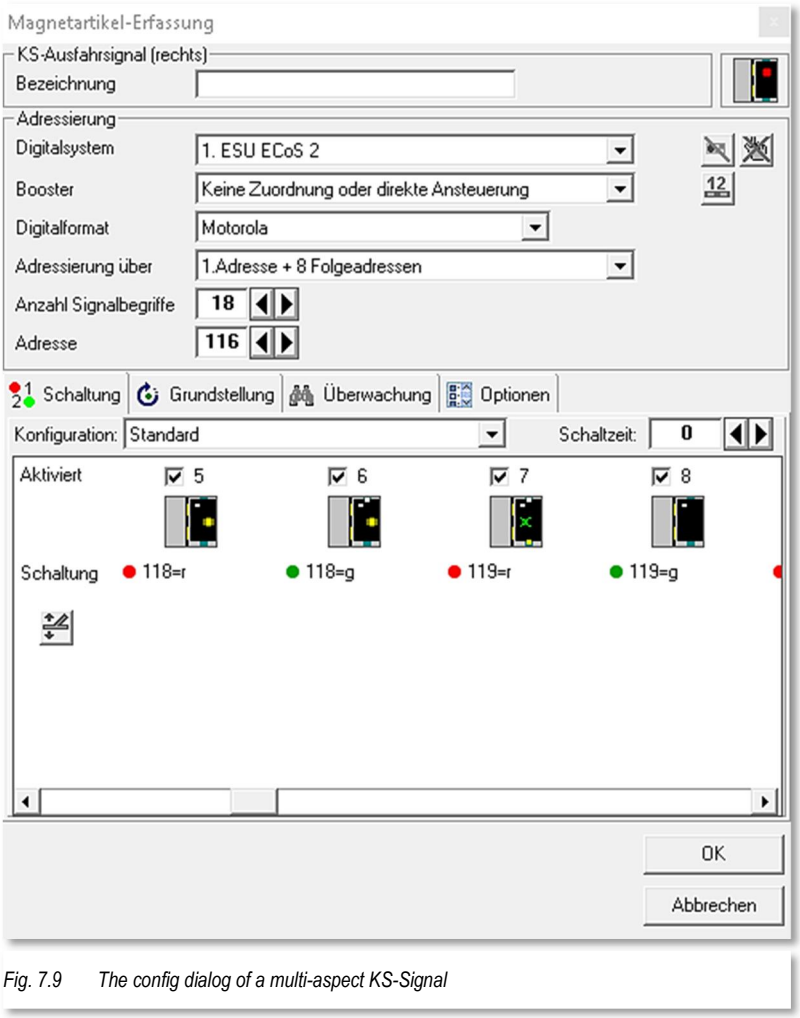


Fig. 7.9 The config dialog of a multi-aspect KS-Signal

11 addresses. You can choose between 1 addresses + 1..9 following addreses plus an optional additional address. The correct addressing scheme has to be selected according to the possibilities of you decoder.

- **The index card „Basic settings“**

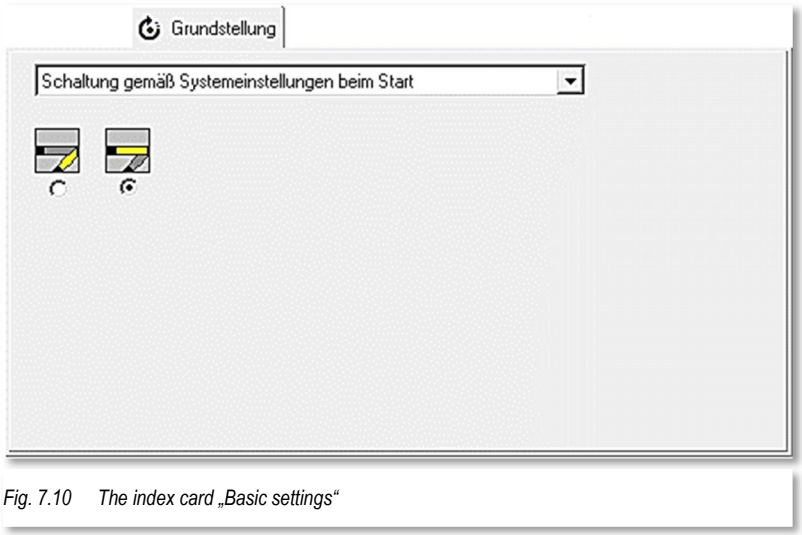


Fig. 7.10 The index card „Basic settings“

On this index card you can choose the basic setting of this solenoid solenoid as well as the startup behaviour of this solenoid devices when starting the main program.

The basic aspect can be chosen using the radio buttons above the aspects.

In the list box you can select the startup behaviour, these settings do also affect the menu function “Start basic settings”. “Current positions” mean the current state/aspect of the solenoid device.

The available options in the selection box are:

- Switch according system settings at start
- Exclude from basic setting
- Exclude from current positions
- Exclude from basic & current positions
- Always basic position at start
- Always current position at start

- **The index card „Monitor“**

Fig. 7.11 The index card „Monitor

On this index card you can depending on the used digital systems several possibilities for switch position monitoring.

- **The index card „Options“**

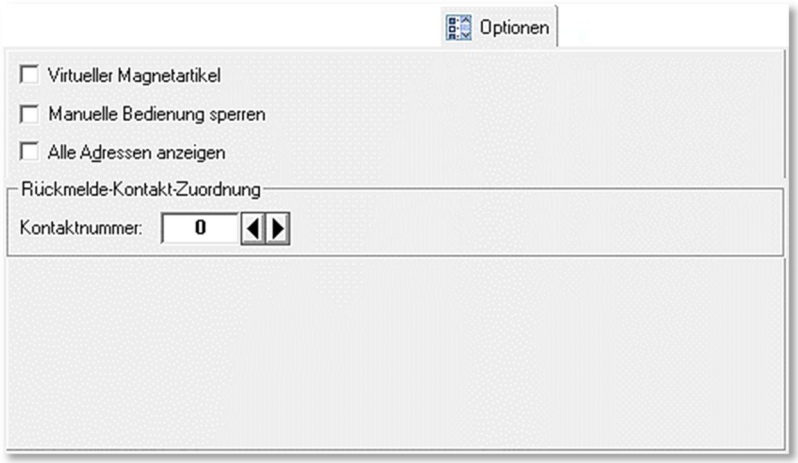


Fig. 7.12 The index card „Options“

On this index card you can choose the following three options as well as in the upper section of the dialog:

- Virtual solenoid device
  the solenoid device will be marked as “virtual” -> no commands will be issued to the digital system.

- Block manual operation
  If this function is activated the manual operation of the solenoid device within the track diagram is only possible after answering a security question.
- Show all solenoid device addresses
  Within the track diagram the addresses of all solenoid devices will be shown next to the solenoid device symbols.

If the used symbol has the ability to report an occupation state provided via a feedback contact you can select the according feedback contact number here also.

- **The index card „Digital system link“**

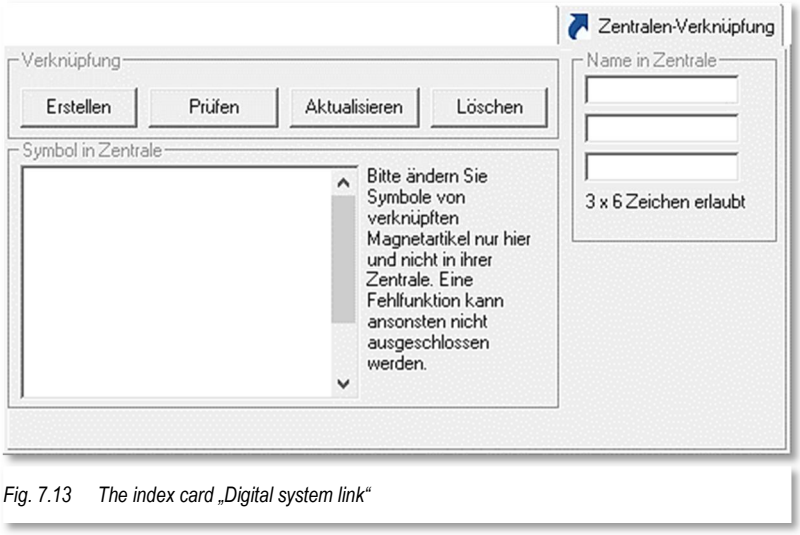


Fig. 7.13 The index card „Digital system link“

These index card will be shown if it is necessary to create and link solenoid device objects within your digital system (e.g. ESU ECoS). For correct functionality of this index card you need a interface connection to your digital system.

7.2 Additional functionality of the mouse wheel

If you use a mouse with a whell which allows not only scrolling up/down but also left/right this function is now usable in the track diagram of the track diagram editor and within the main program of **Win-Digipet**.

7.3 Print routine for solenoid devices

The print routine for solenoid devices has been enhanced in **Win-Digipet 2018.1** to meet the requirements of the many options provided by newer digital systems e.g. BiDiB.

8. Main program

8.1 Train number display properties

Due to many users request we extended the already existing feature to limit train number displays to specific matrix types now with the possibility to select one or more locomotive, which are not allowed or only allowed to travel to edited train number display.

Within the dialog “Properties train number display” you can find on the index card “Name & Matrix” in the lower section where you can place one or more locomotive via drag&drop. With the button beside the list, you can select whether the train number display shall be exclusively used by this locomotives or if you want to block the train number display for the listed locomotives.

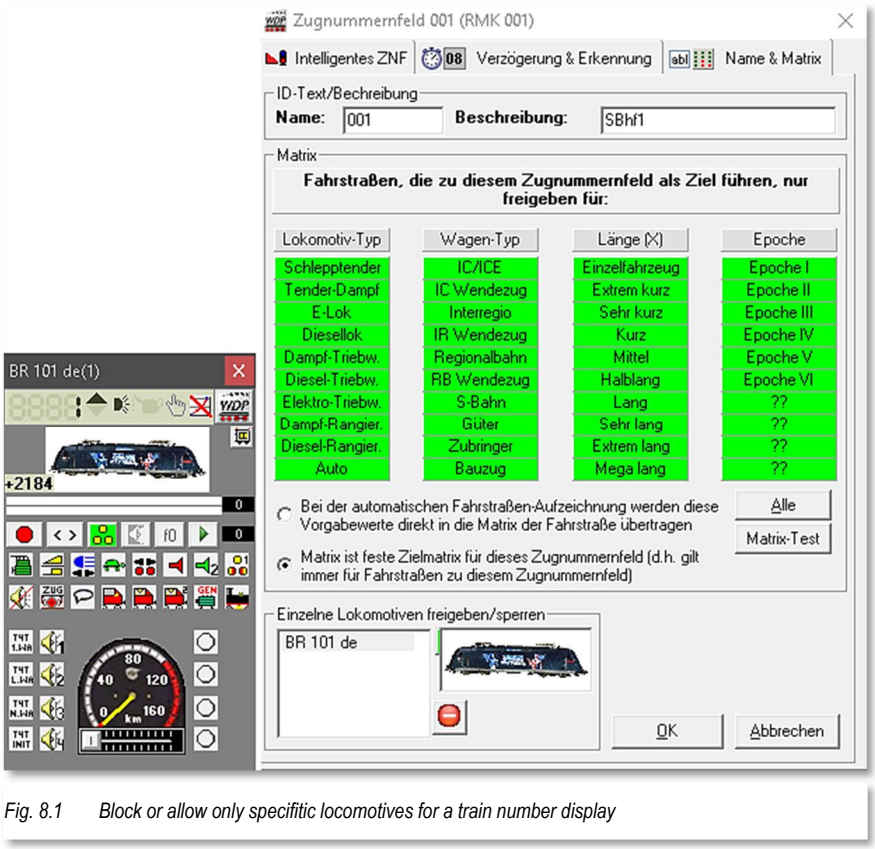


Fig. 8.1 Block or allow only specifitic locomotives for a train number display

If you have multiple train number displays within a station track to place multiple trains one after the other, take care to create no locking situation by defining conflicting settings.

8.2 Brake behaviour on intelligent train number displays in special situations

Until now we had the problem, that when a section/track contact due to delay situations in a profile or due to dirty tracks fired its speed command after the intelligent brake already

had started, this resulted in terminating the brake process and the train travelled along forever.

We will keep the functionality that as soon as a speed command greater zero is issued after the start of the iTND-brake process, the brake process will be terminated. This is important because a manual intervention by locomotive control or digital system has to be possible in any situation.

But if the speed command is issued by the route/profile which also started the iTND-brake process, then the speed command will be ignored and logbook record will be created:

"Speed command x issued by profile x/route z will be ignored due to active stop at iTND".

If the delayed command is not a speed command but a turn command and the iTND of the according route is active, the train will be stopped, the locomotive control of the according locomotive/train and the train inspector will be opened. A message box informs the user about the situation and that he is now self-responsible to drive the train to its destination.

8.3 Extended simulation

Using the simulation, you can test settings/operation situation on your model railroad without the risk to damage something due to false configuration. The simulation has been extended in this version of **Win-Digipet**.

- Deleting a route in the tour inspector will now also terminate the route´s contact processing simulation. But it will not terminate the complete simulation mode.
- The simulation steps of a route can now also be monitored in the train inspector. In the list you can see the contact numbers which will be processed one after the other and the contact-on-time for each step. In the context menu for this list you can:
  - Delete single simulation steps
  - Delete the complete simulation of a route
  - Set single simulation steps to “skip” (or vice versa)
  - Force to go to the next simulation step

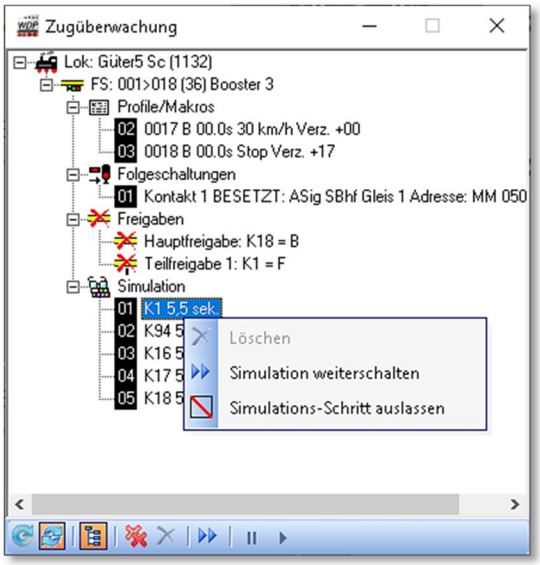


Fig. 8.2 Simulation steps within the train inspector

- The simulation control window now offers three operation modes which can be activated using three buttons:

Abb. 8.3 Das Simulations-Kontrollfenster

  - Play-Button/Modus:
    new routes will be added automatically with all necessary steps to the simulation list and the steps will be processed automatically one after the other.
  - Pause-Button/Modus:
    new routes will be added automatically with all necessary steps to the simulation list. You can now activate later the Play-Button for automatic processing or you can activate one-step after the other using the context menu of the simulation step list in the train inspector.
  - Hand-Button:
    new routes will not cause adding of steps to the simulation step list. The user is self-responsible to activate the necessary contacts in the track diagram to simulate traveling along the route.

- If the automatic simulation list contains step for a route and you click on a contact belonging to such a simulated route you will see the following message:

  " The contact x is currently part of the simulation of route y. Do you want to exclude this contact from the automatic simulation?"

  You have three possibilities to answer the message:

  - Yes:
    the contact is toggled and afterwards removed from the automatic simulation list
  - No:
    the contact is toggled, but will be executed by the simulation later again
  - Abort,
    the contact state is not changed

8.4 Additional functions in the locomotive control

Fig. 8.4 The locomotive control

For locomotive which have not been measured using the locomotive speed measurement dialog you can now open the speed measurement dialog by double-click on the “speed-measurement-missing”-indicator in the locomotive control.

The same applies to locomotive which have not been linked to their digital system (only ESU ECoS 1&2/CS1/CS Reloaded) you will see a “link-missing indicator” in the locomotive control and you can open the decoder pane of the vehicle database with a double click on the indicator.

8.5 Booster management

The booster management offers now the possibilities to show (current) values of the LoDi-Boosters as well as the current values of the Strom-Sniffer XL provided by CAN Digital-Bahn.

8.6 Intelligent turntable

The configuration window for the intelligent turntable has now the possibility to monitor a turn button which has been assigned to the turntable in configuration mode “Other turntable decoder type”.

8.7 Train automatic editor

The number of possible follow-up ways has been increased from 20 to 60.

8.8 Train composition

You might have trains on your layout, which you just want to drive backwards (or in a specific direction) very carefully/manually, but not in automatic operation.

Within in the train composition dialog you have now the possility to block automatic direction changes. This affects

- Tours (Train stops with message of wrong direction),
- The tour automatic („Turn always“ and „Turn if necessary“ rows are not allowed for this train)
- The start-destination window the automatic turn will not be offered/activated
- Profile contact events with turn commands (Train stops with message of wrong direction)

You can check if this train function/configuration is activated using the conditions in the condition tree of the dispatcher/tour automatic and you can (de)activate this function using the switch functionality in the dispatcher, tour automatic or by Profile contact events.

8.9 Central Clock

The central clock was enhanced in its functionality. A day-night-mode has been integrated. If activated the face of the clock will have a black background from 6pm to 6am and a white background from 6am to 6pm.

Additionally you can choose now if the central clock should be identical to the computers system clock. Of course then no model railroad factor setting is possible.

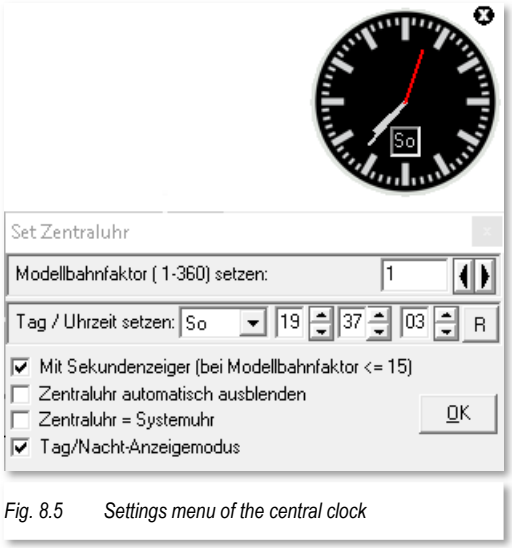


Fig. 8.5 Settings menu of the central clock

8.10 Train director

8.10.1 Train director “Priority control “

The new train director “Priority control (PC)” affects specific train number display and can be used to give this train number display (and the train on this TND) priority handling/operation compared to trains on other train number displays if both have the same destination. At first sight the train director “Priority control” seems to be similar to the train director “Pass by control (PBC)”. The difference is, that the TD PBC gives priority to trains according to the priority assigned to their waggon type in the matrix, while the TD PC grants priority to trains that are waiting on a specific train number display for their next journey.

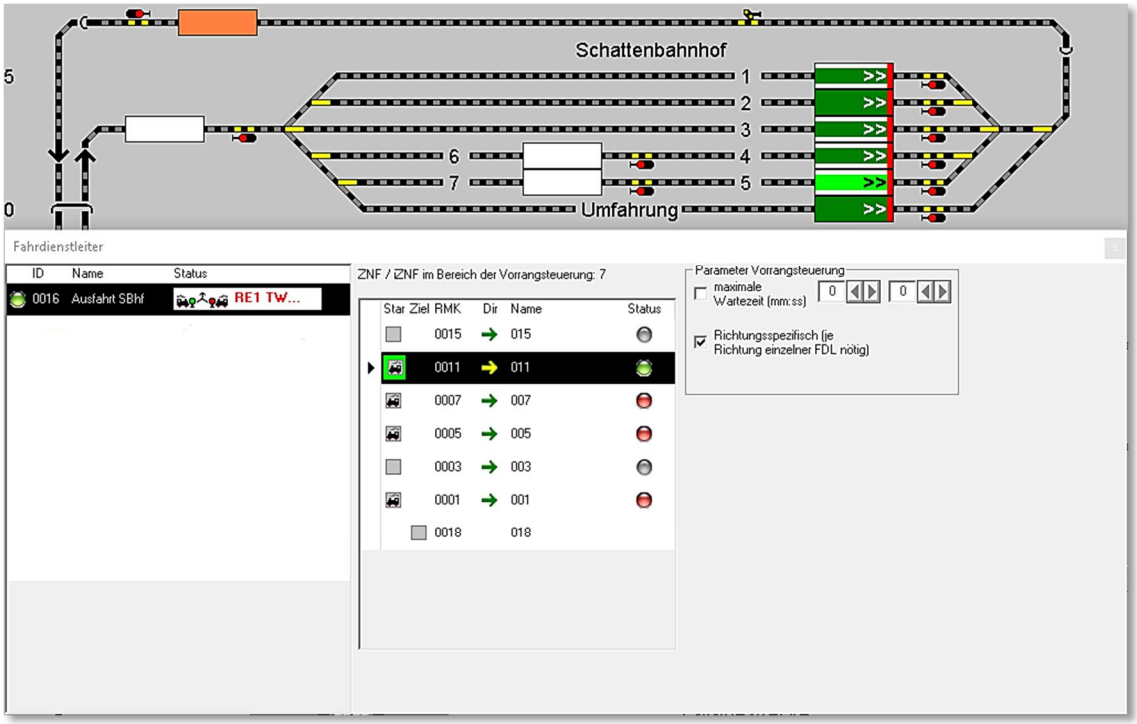


Fig. 8.6 The train director „Priority control“

The TD PC can also be limited to just one driving direction.

The configuration is similar to the other train director types. You can drag&drop train number displays from the track diagram to the list in the middle of the train director in edit mode for the TD PC. In our example we dragged all exit TND form the hidden yard to the list. All these TND have the same destination: the first block signal behind the hidden yard.

Also the TND (contact 18) of the block signal has been dragged into the list. Using the context menu of the list, these TND has been selected as destination TND. In similar way TND 011 has been chosen as priority track.

Further information can be found in the add-on documentation for the train directors provided by Sven Spiegelhauer. This add-on documentation includes also example projects and can be found in the Download section of the Win-Digipet homepage (August 2018: at the moment only in German).

8.10.2 Train director “Hidden yard control”

The TD “Hidden yard control (HYC)” can also be used if you have placed more than one TND into long tracks to get possibility to store also 2 or more shorter trains instead of a long one.

If one the fore train number display now a long train is registered you can see now the occupation of the back train number display(s) in the status indicator of the TD window as well as in the track diagram indicated by small waggon symbols. These also interesting for users of 2-rail systems where maybe not all waggons are equipped with the possibility to report and occupation. Of course it is important for this feature to create correct train compositions with correct vehicle lengths.

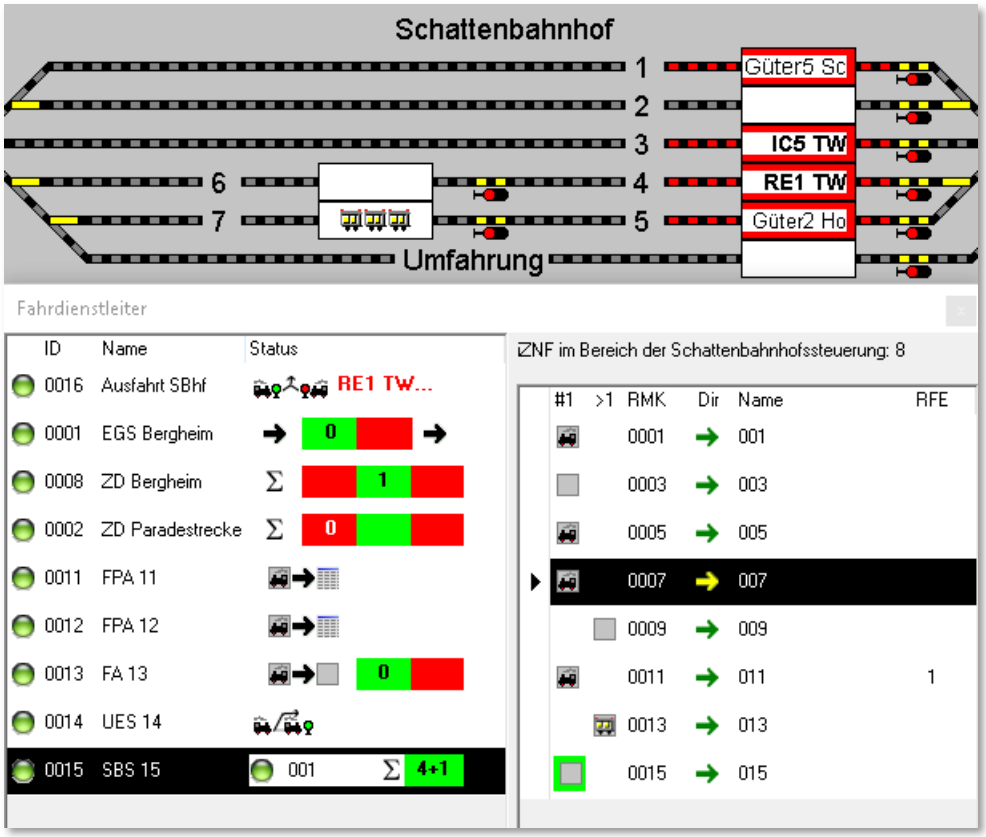


Fig. 8.7 A long train on track 5 of the hidden yard

All iTND in series of a track have to registered in their physical order within the list of the TD HYC. The TND which is the first one/most fore in driving direction has to placed at the top of the list for each track.

The column ‘Dir’ has to be configured always even if the hidden yard is used for just one direction.

If you have not registered the driving direction for TD HYC configured in 2018.0 you need to add this configuration now. Please take care of the according messages reported by the check routine.

A registered pass by track for a TD HYC will be used even if the maximum occupation of the TND has been reached.

8.10.3 Train director “Train density”

In the train director “Train density (TD)” you can now beside the maximum number of occupy able train number displays also a matrix filter. Then this train director will only count trains/locomotives on its train number displays if these meet the configured matrix settings. Using this functionality you could for example just limit the number of good trains within a specific region.

8.10.4 Train director “Timtable display”

The train director “Timetable display (TD)” saves now the setting if the column headers are shown permanently even when you end the program and will restore the old settings after the next start.

Further you can now see in the TD the tour automatic clock. Also this setting will be saved.

It´s now also possible to assign train number displays to multiple timetable displays. In this way you could for example a train number display for all stations and additional others for each single station.

8.11 Dispatcher

The possibility to exchange one locomotive/train by another is already known from the routes and tour automatic editor. Starting from version 2018.1 this functionality is also available in the dispatcher editor.

Within the scope of this new functionality, we enhanced also the handling of locomotive exchanges in the tour automatic editor. Now also all conditions, including conditions for intermediate stops, will be processed.

The same applies to train name exchanges. The possibility to exchange train names has also been added to the route editor.

The train name exchange can only handle the condition *"Train name = abc"*, but not the parameters *"Train name starts with/contains/ends with"* -> only 1:1 exchange possible.

The exchange routine for locomotive exchange affects also the following switch actions:

- Change locomotive colour of loco x
- Execute locomotive macro for loco x
- Counter value equal to vehicle position of vehicle x in train

If the "Execute locomotive macro for loco x" used a macro which was locomotive specific the macro would not be executed in the future. A messagebox will inform you in such cases and will ask you to start the check routine.

8.12 Conditions

8.12.1 Conditions for contact events

In the editors for profiles and macros a new expert mode is now available. When this export mode is activated you can add conditions (similar to the ones already know from the dispatcher and tour automatic) to each contact event row. This functionality is also available for contact events defined in the tour automatic editor.

The condition window can be opened by pressing the button  below the contact input box. The available conditions are well known from the dispatcher and tour automatic editor,

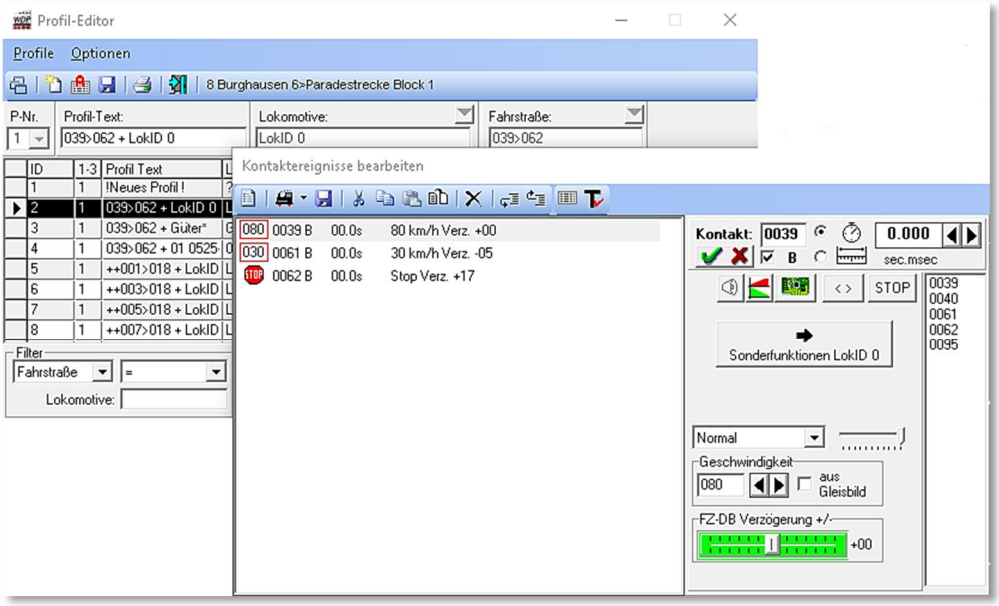


Fig. 8.8 The contact events, here in the profile editor

all reasonable conditions for this scope are available. Only the new conditions to check travel-threw situations within a tour are available in the conditions of the contact events (see 8.12.2). As soon as you have configured conditions, the button will be coloured yellow.

A simple condition will also be shown in the contact event list, complexer conditions will be listed as *"Condition complex"*, because a complete condition is not reasonably listable in a single text row.

The basic contact event processing has not been changed. The condition decides just if the action the contact event row will be executed or not. If the condition test fails the row would be threated as if it would contain a command "No command".

This means:

1st Row: contact x command a after 10 cm

2nd Row: contact x command b after 10 cm

If now the condition the condition of the first row does not match, the second row will executed nevertheless after 10+10=20cm and not already after 10cm.

A special handling applies to macros in profiles. If a macro contains multiple rows with single condition in several row, the macro execution is handled as described above. But if the contact event row in the profile which calls the macro contains a condition all macro rows will be skipped.

8.12.2 Condition „At travel threw“

In scope of the conditions for contact events we added a new condition which can be used to check if the current train is traveling threw to the next route without stop or if it came from another route without stop.

This condition is only available for contact events in the profile editor, macro editor and in the contact event dialog of the tour automatic editor.

The Expert mode has to be activated in these editors if you want to use this condition.

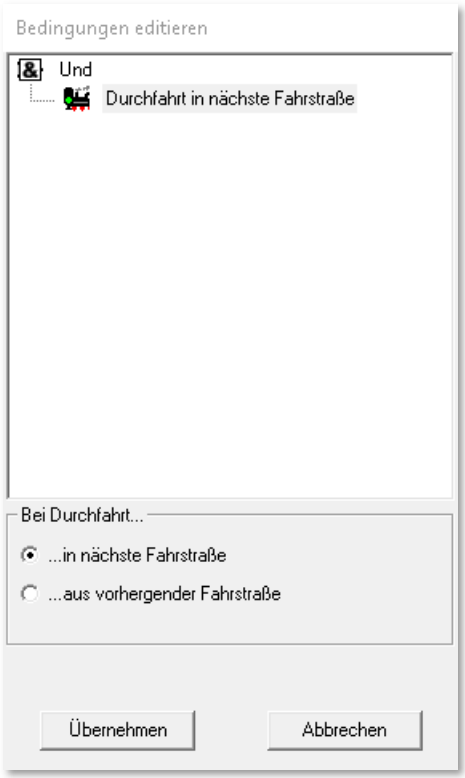


Fig. 8.9 The conditon „At travel threw…“

8.12.3 Condition „Train director state“

In the conditions you can now also for several options/states of the different train directors. These conditions are only available in expert mode. The available options are:

- Train director activated/deactivated
  (for all TD except the Timetable displays)
- TD Single rail track (SRT)
  current number of trains larger/smaller/equal/smaller-equal/larger-equal than a number of counter-value
- TD Single rail track (SRT)
  used in main or opposite direction
- TD Priority control (PC)
  priority (not) active
- TD Pass by control (PBC)
  pass by process (not) active
- TD Train density (TD)
  current number of occupied TND larger/smaller/equal/smaller-equal/larger-equal than a number of counter-value
- TD Driving activity (DA)
  current number of driving trains larger/smaller/equal/smaller-equal/larger-equal than a number of counter-value
- TD Hidden yard control (HYC)
  current number of trains larger/smaller/equal/smaller-equal/larger-equal than a number of counter-value
- TD Hidden yard control (HYC)
  current number of occupied TND larger/smaller/equal/smaller-equal/larger-equal than a number of counter-value

8.13 Switching

8.13.1 (De)Activation of train directors and dispatcher records

Depending on operational situations it might give good reasons to (de)activate single dispatcher or train director records temporarily.

These is now available in the following editors:

- Dispatcher,
- Tour automatic editor as switch action under the Options index card,
- Route editor as add-on switching.

You can select which one of our dispatcher or train director records shall be activated or deactivated.

Please be informed that this functionality is only available in the Premium Version with activated Expert Mode in these editors.

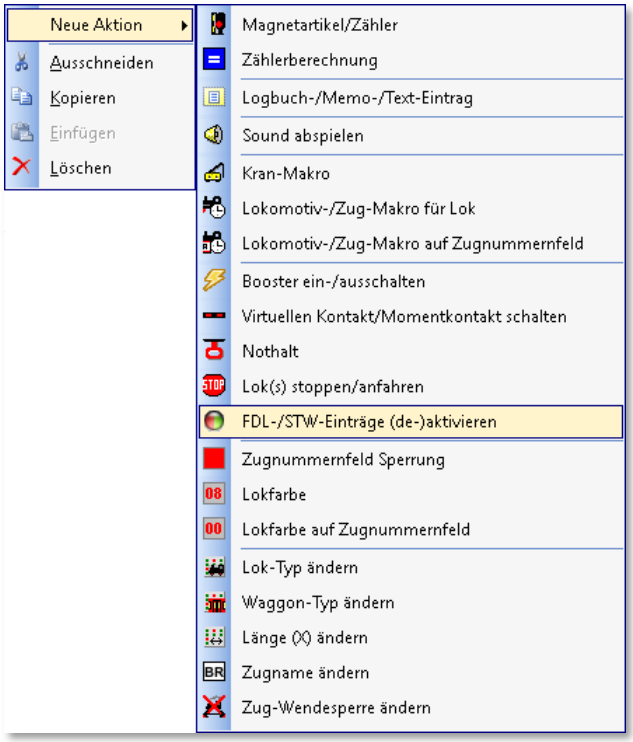


Fig. 8.10 The menu showing switch actions (taken from the dispatcher)

8.13.2 Global execution of locomotive train/macros

We already had switching actions for

- Locomotive/train macros for specific trains
- Locomotive/train macros for locos/trains on specific train number displays

Now we added the possibility to execute macros for more than locomotive at the same time.

Instead of entering a single locomotive via keyboard or via drag and drop just register an “*” (asterisk) in the input box. This stands for “All locomotives”.

This action applies only to locomotives which are not sub-locomotive in a train. If the executed macro is an ID0 or train macro the macro will be applied to the complete train. For waggons the macro will be applied always

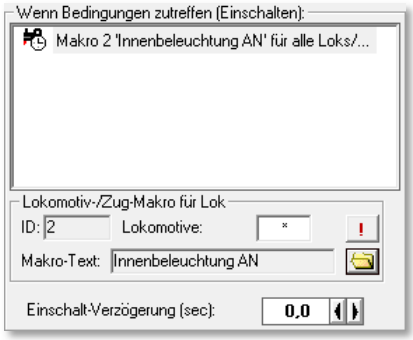
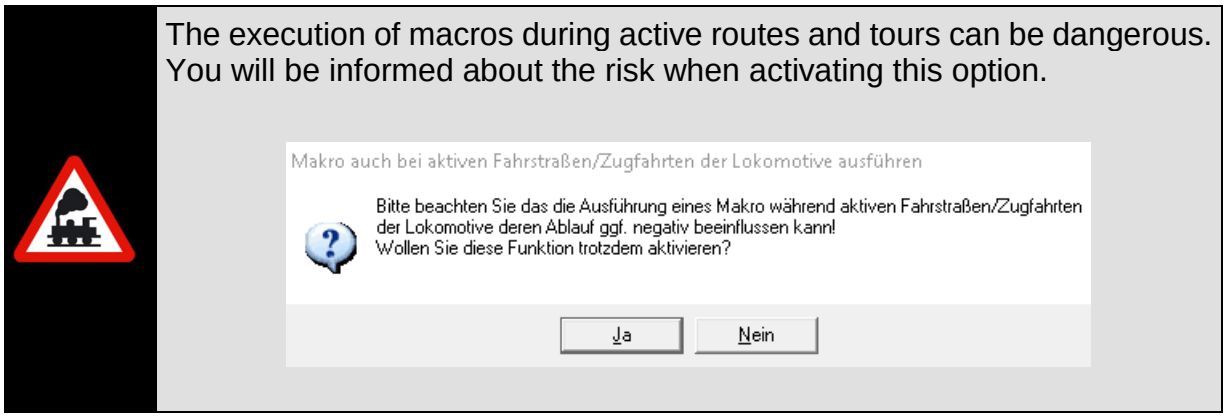


Fig. 8.11 The global usage of a macro

The button with the read exclamation mark (see. Fig. 8.11) forces the macro to be executed even if the affected vehicles are currently on their way in a route or tour.



The wild card "*" is also available for the following switchings:

- Locomotive-/train-macro on an iTND
- Block TND
- Start/stop single locomotive on TND
- Change locomotive colour on TND

When defining train number displays for the listed actions you also have the possibility to register more than one train number display. The single train number displays will be separated by ";" (semi-colon). You also specify contact ranges like "5-8" (contact number not belonging to TND will be ignored).

8.13.3 Switching action "Counter calculation"

The already know action Counter Calculation has been enhanced by new options:

- TD Train density (TD)
  current number of occupied TND
- TD Driving activity (DA)
  current number of driving trains
- TD Hidden yard control (HYC)
  current number of trains
- TD Hidden yard control (HYC)
  current number of occupied TND
- TD Single rail track (SRT)
  current number of trains

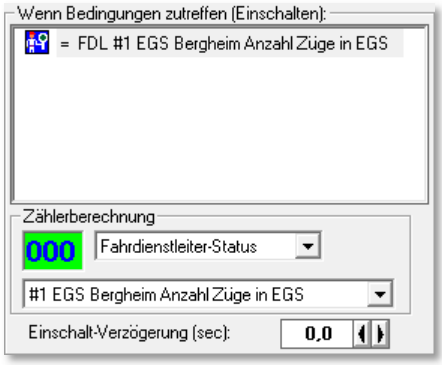


Fig. 8.12 Status of train director

For example you can create a counter display within your track diagram to show the number of trains currently using a single rail track.

Please be informed that this functionality is only available in the Premium Version with activated Expert Mode.

8.13.4 Switching action “Logbook-/Memo-/Text record “

In the editor for extended message texts you can now also use the matrix values of trains resting on a specified train number display and use these in the textual messages.

8.13.5 Switching action “Switch virtual/momentary contact“

For users who use momentary contacts on their model railroad it might be useful to change the state of momentary contact using switching actions e.g. via special dispatcher at program start and so on.

You can also decide if the action should only be performed when the according TND is showing a train.

You also have the possibility to register more than one contact. The single contacts will be separated by “;” (semi-colon). You also specify contact ranges like “5-8”.

Contact numbers which are not applicable (e.g. no momentary contact) to the configured action will be ignored.