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1. Intended Use

Providing and managing CV and sound for transmission by the programmer 60971 or the Central Station(60213/60214/60215).

2. Requirements for application:

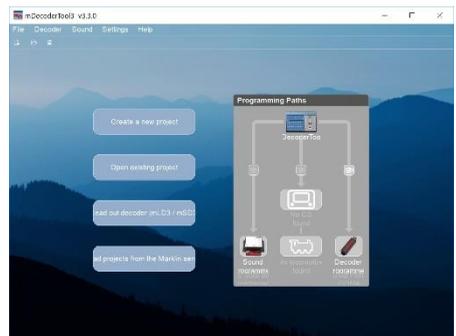
- PC with internet connection and 30 MB of free space for the program
- 1GB free disk space for Sound Library
- Windows XP or higher
- Sound Library (Download from German Märklin web page, Service, -> Downloads -> Soundbibliothek für mSD3)
- Marklin decoder mSD/3 60975-60979, 60985-60987 and CV management in mLD/3 decoder 60972 and 60,982th

2.1 Preparation:

Now load the decoder tool from the Märklin website (*Service -> Downloads-> NEU: Nachrüst-Decoder mLD3/mSD3* or www.maerklin.de/de/service/downloads/neu-nachruerst-decoder-mlD3msd3/mdecodertool-mdt3/) Save this program on your PC, Now call it the stored setup file: mDecoderTool-v3xx-Setup.exe to begin the installation. Follow the installation instructions. After installation you can find it on drive C in the following folder: *C: \ ProgramFiles \ Maerklin \ mDecoderTool3 * (Applications folder)*, it contains the program files and templates for the Decoder mLD/3 and mSD/3 system. Under *C: \ Documents and Settings \ username \ My Documents \ Maerklin ** are the subfolders mDecoderTool and sound library.

3. Applications

After installation, you can start the program. Then you will see this start screen.



Below we will explain the operation of the programmer with examples. Click on "Create a new Project".



Select the desired type of decoder, eg retrofit decoder Third Generation (mSD / 3) and confirm the selection.

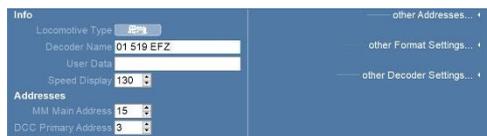


Before you start, update the "sound library" under the sound (about 500 MB)



On the displayed dashboard you will find: Decoder, motor functions and programming paths. There are pre-set basic settings displayed. Click on the tool icon to change decoder settings. The other two windows allow you direct access when editing an existing project.

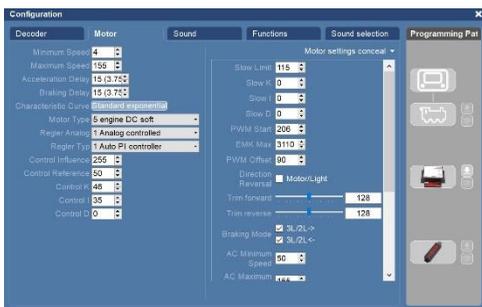
Enter the Decoders Name (locomotive name), its User Data and MM or DCC address. By clicking on the Locomotive Type icon you will get a selection with various Locomotive icons (MS1, MS2, CS1), select the appropriate.



Press the arrows on right to open more settings. Here you will find additional settings for your decoder. Make the desired settings.



Once all settings have been made, switch to the "Motor" tab. Here you select the motor type, you can keep the other basic settings for the time being. In the case of the calibration run to be carried out at the end, these are automatically determined and set.

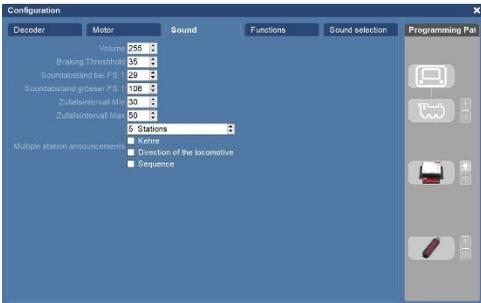


By pressing the arrow you can open more Motor settings. Here additional settings are enabled for driving.



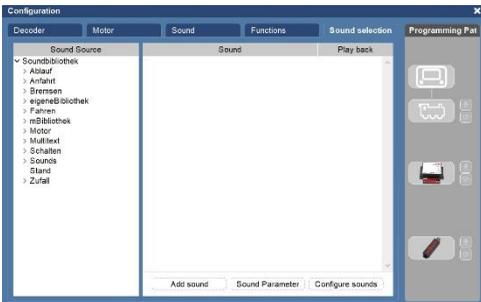
You can find the settings in the decoder manuals or under -- www.maerklin.de/de/service/technische-informationen/--

When all desired settings registered, go to the tab Sound.



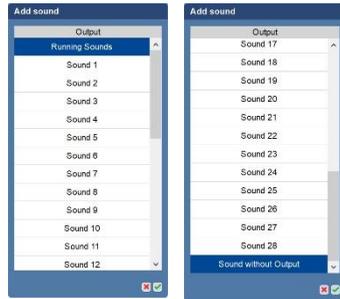
If no changes are made, go directly to the tab sound selection.

Here you can set your sound list together. Click "new sound".



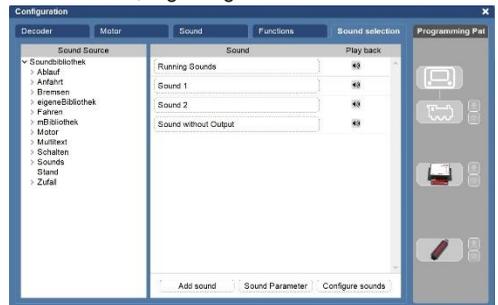
In the following window, select for example "running noise". These and the following selections for the time being used as a placeholder until the selection of the sounds you want.

Next, select "new sound" another sound as: "Sound without Output".



This selection is important for sounds that depend on the driving sound, including sounds of the categories: Driving, braking and shifting.

You can add more sounds by clicking the "new sound". The numbering the sounds, serves later the functions settings and the function mapping. When you have selected your functions (max.16 incl. Headlight), fill in the individual sounds with the desired sounds. To do this, select from the sound source, e.g. "Engine".



Then select your desired locomotive sound (V200) with the left mouse button and drag the selected sound into the field driving sound with the mouse button held down. Let go of the mouse button.



In the "Sound without Output" need a sound from the categories Anfahrt (arrival), Bremsen (brakes) (eg "Bachen / V200") or Schalten (switching). It is possible with more than one field "Sound without Output" to create and fill with sounds from the above categories. Sound without output is not among the maximum of 16 functions.



If all sounds you want are occupied with sounds, go to the "Functions" tab. With the "+" symbols in the right column "Actions" you can add an action to the selected function key. With the tool symbol it is possible to configure the corresponding action.

The function F0, F1, F2 and F4 are pre-assigned with examples, these can be skipped or adapted.



Clicking on the function, and right-click in the field you can reset it, so that it can be used for your own functions. By right-clicking, actions can be deleted individually.

Assignment of the sound actions.

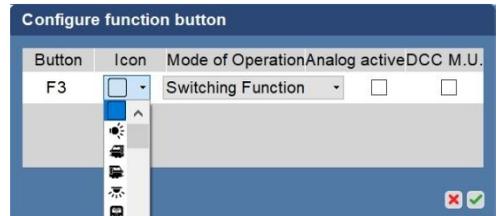
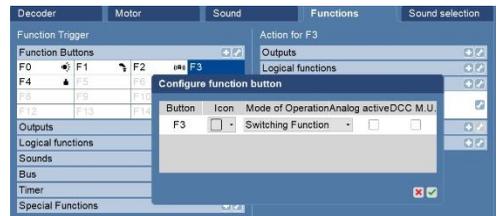
Highlight the desired sound trigger (F3), select the desired action for F3 by pressing + (Sounds)



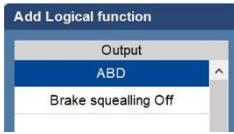
And then select the desired sound (Sound 2). If required, you can adjust the volume by clicking on the sounds tool icon. (configure sounds)



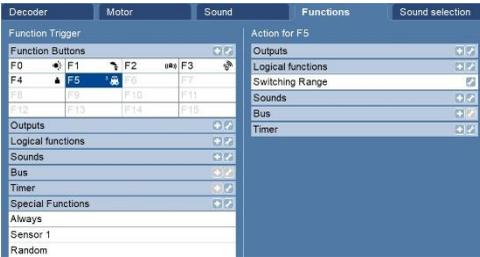
Double click on the highlighted F3 field to configure the icon for this function.



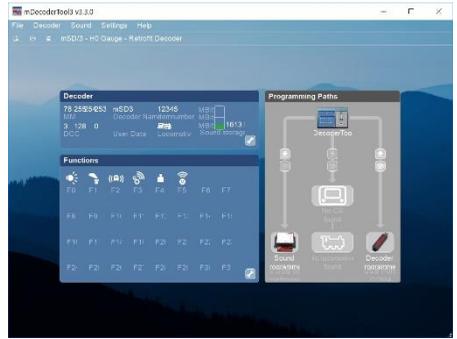
In the same way, you can assign logical functions such as brake squeal AND/OR to a function key.



To transfer the file through the CS 2, a stick with a CS 2 folder and at least 10 MB of free space must be attached to it. Close the configuration window and go to the home page. Now press the arrow above the CS 2 and follow the instructions.



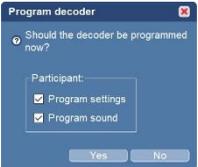
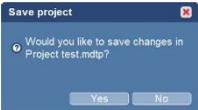
Once you have made all the settings, you can program the decoder.  Use this button to initiate the transfer to the selected device. When no devices are connected the arrow will be grey. Answer the question that appears.



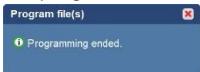
Install the decoder in the locomotive and start the calibration test. Follow the instructions in the decoder manual.

Once the calibration test has been completed, you have the option to read in the decoder and save the data in the project. This function is only available with decoder programmer 60971.

Open the existing project and connect the decoder back into the programmer. Go to decoder, in the window that's opens, click Read out decoder (mLD3 / mSD3).



After a successful transfer, you can close the program.



CS2 Slow transmission of all sounds and decoder settings

Only sound transfer

Fast transfer of all sounds and decoder settings



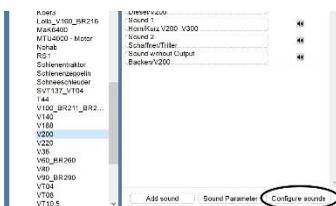
Answer subsequent question and subsequently save the project again.

Sound and function types

- **Sounds:** Individual sounds such. B. whistle, horn.
- **Ablauf:** Sounds that are played in a certain frequency when turning on or off or switched on or off. The playing frequency is determined by the set parameters (see above).
- **Zufall:** Includes several different sounds to be randomly selected when playing, for example, different platform announcements.

- **Stand:** This sound is only played when the vehicle is stationary for at least 256 seconds. The sound is cancelled when the vehicle continues its journey.
- **Logik/Sound Mute:** This field can only be assigned with a sound number (1-15), further selection is not possible. This sound numbers causes a soft fade in/out of the active sounds.
- **Schalten:** Sound for switching sounds depending on the driving sound "Sound without Output".
- **Fahren:** These sounds are sounds that include driving, e.g. track impact's and are speed-dependent played.
- **Anfahrt:** Sound that is played before the start of the journey, e.g. Brake release (Bremsen_auf) "Sound without output".
- **Bremsen:** Selecting the Selection of the brake sound, e.g. discs, a sound number can not be assigned "Sound without output".
- **Multitext:** Sound with successive announce e.g. announcement of the next stop of an influx. May require up to 3 sound numbers. A condition is the correct configuration of the decoder (CV 60)
- **Logik/ Bremsen aus:** With this function, the brake squeal can be switched off when the operating sound is switched on.
- **Motor:** This sound is always the typical local operating noise for Steam, Electric and Diesel locomotives.

4. Setting / changing the sound parameters



With "Settings" you can change or adjust individual sound parameters. These settings are transmitted with the sounds through the sound programmer.

Random Sound

A random generator determines the time when the sound is played. The sound slot is played. The sound slot number can be found under sound by

holding the mouse pointer on it.



You must enter this slot number in the settings. The example shows: 75(sec) = switch-off time, 60(sec) = switch-on time, 15(sec) = playback time (results from switch-off time and switch-on time) and sound_slotno. 3 (Sound 3)

Sound Parameter				
Name	Address	Size	Values	
Ext. Eingang 3	78	1	0	
Zufallsounds (Start Ende Soundnr. Prio)	128	128		
Zufallsound 1	128	4	75 60 15 3	
Zufallsound 2	132	4	0 0 0 0	
Zufallsound 3	136	4	0 0 0 0	
Zufallsound 4	140	4	0 0 0 0	
Zufallsound 5	144	4	0 0 0 0	
Zufallsound 6	148	4	0 0 0 0	

Parameters Ablauf (run) sounds

Changeable: Here you can set the number of sounds to be played and it can be set to switching on and/or off, e.g. bell switching off after 12 times.

