

Adventures In DCC JMRI Decoder Pro

A very, very, very short DCC Clinic
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Objective

- Increase our knowledge about;
 - Digital Command Control or DCC
 - Use of JMRI – Decoder Pro.
- Disclaimer; I am not an DCC or computer expert, just another modeler like your self that is interested in DCC.

A Few Quick Questions Before We Start

- How many know what DCC is?
- How many use DCC either in a home layout or a club setting?
- How many of you own or use DCC products from;
 - NCE ?
 - Digitrax ?
 - Lenz?
 - Atlas?
 - Wangrow?
 - Bachman?
 - MRC?

A Little History On DCC

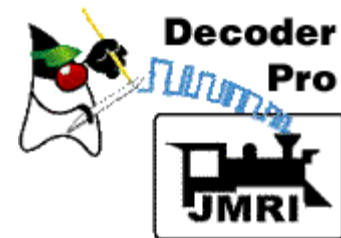
- 2003 NMRA Approves DCC standard.
 - Out of chaosorder.....I think.
 - A historical moment.
 - Tip of the hat to Dr. LENZ for the basic approach.
- Since then a flood of DCC products have made their way into the model railroad world. In all scales Z to G
- A major step change has occurred with DCC...to say the least.
 - ***However...there is no such thing as a “Free Lunch”***

DCC – In General

- . Advantages of using DCC included;
 - Wiring of layouts became easier....(eh?)
 - More Lighting effects.
 - More Sound effects.
 - Remote control of layout turnouts and accessories .
- Operation of your “train”. True railroad “simulation” can be achieved.
- System Manufactures allow programing of decoders via there command stations and their throttles.

DCC – In General

- Each DCC equipped locomotive contains a tiny, specialized controller known as a decoder.
- Decoders accept digital commands over a network (the rails) addressed to them
- Decoders interpret commands to control the locomotive's speed, direction, lighting effects, sound, and other functions.



DCC – In General

- Decoders must be programmed by the user. You do so by editing **CVs**, or **Configuration Variables**, in the decoder. This can get very complex.
- However, what about the programming of decoders? Beyond getting a 4 digit address in into your decoder some folks still have problems.
- FortunatelyDecoder Pro or JMRI has come along to help us...



JMRI (Java Model Railroad Interface) Decoder Pro

- **Decoder Pro** overcomes the complexity of this by providing a clear, graphical, user friendly software solution for programming decoders. It runs on MAC (OS), PC (Windows), and the Raspberry Pi (Unix)
- **Decoder Pro 4** is the latest version. It is open source. It is free....but donations gladly accepted.
- Please donate if you down load the software to your computer.



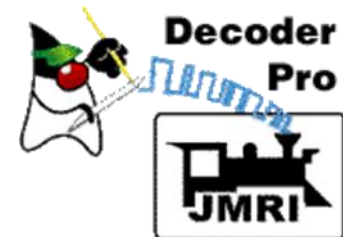
Decoder Pro

To use Decoder Pro you need;

- A computer
- A command station/booster,
- A programming track,

And you may need an additional hardware interface to send the commands from your computer to the command station, and from there to the decoder in the locomotive.

Example; For a Digitrax system, you need a LocoBuffer.



Decoder Pro



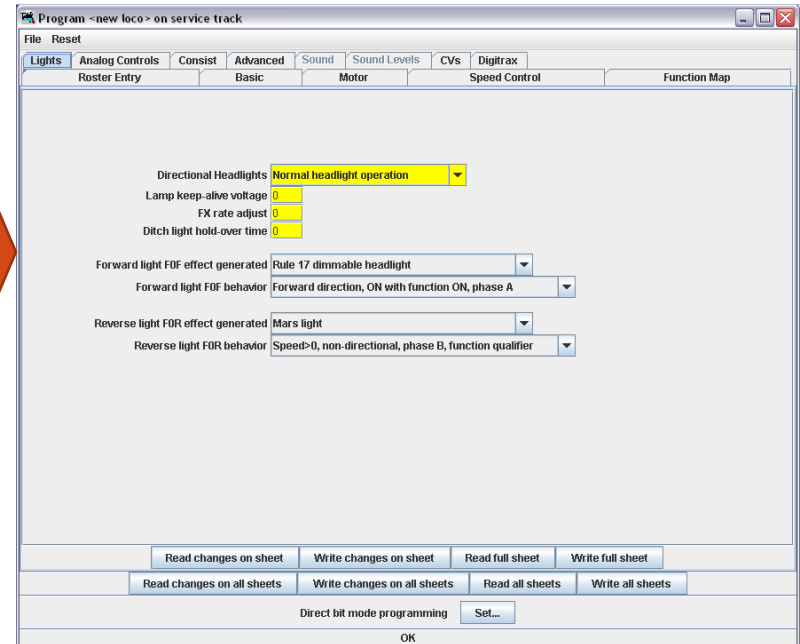
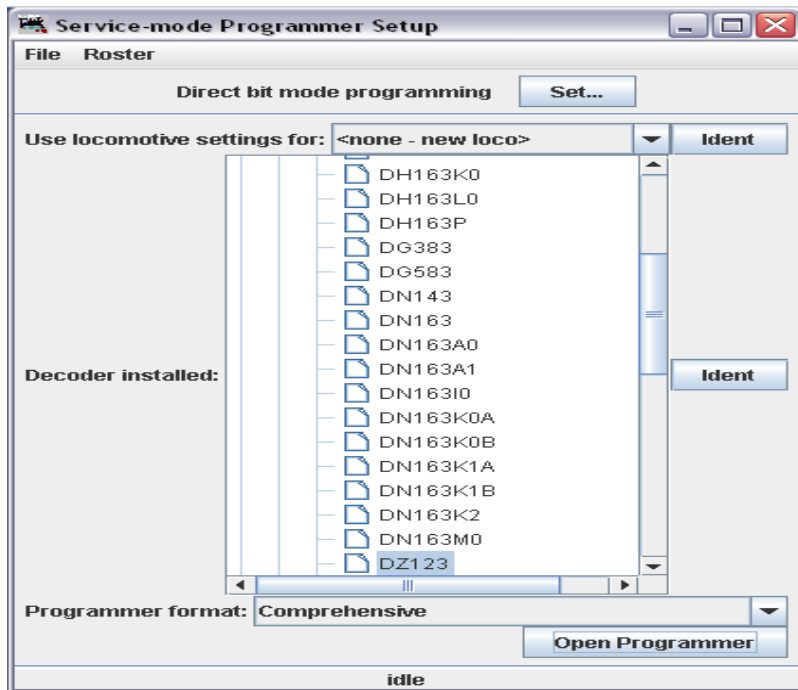
DecodePro 3: All Entries

File Edit Settings Actions Window Help

Programming Mode Direct Bit

ID	DCC Address	Icon	Decoder Model	Road Name	Road Number	Manufacturer	Model	Owner	Date Modified
5000	5000		BLI UP MT-73 4-8-2	UP	7000	BLI			
SF312	5012		D15SR	Santa Fe	1312	Athearn	GP 35		
UP 1328	5028		Four Function Dual Mode	UP	1328	Atlas			
UP SD 40 - BLI Sound Decoder only	128		Diesel						
UP1548	5048		QP15-1	UP	1548	Athearn	QP15-1	UP/WFFan	Sep 4, 2012 5:
UP1227	5027		MCH1102P8	UP	2727	ATLAS	GENSET	LUP/WFFan	Sep 4, 2012 4:
UP5084	5084		D13SRJ	UP	5084	Athearn	SD 60		
UP5471	5		A6X	UP	UP 5471	T55			
UP5471	5071		A6X	UP	5471	T55			
UP5284	3		D15SR	UP	5284	Athearn			
UP5284	5084		D15SR	UP	R284	Athearn	SD 60		

Service Mode Programmer: SPROD is Offline | No Operations Mode Programmer Available | Programmer Status: idle



Demonstration Time

- Now if everything will just work correctly.....big sigh.....

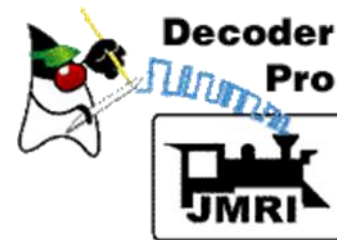
JMRI Use – Important Points;

- Help for using JMRI is located at;
 - http://jmri.org/help/en/manual/DecoderPro3/Comp_Setup_Roster.shtml
- Several You Tube Videos on JMRI as well.
- Connection from command station and programming track. Please no alligator clips!
- Wheels and track need to be clean.
- For Programming Mode Use “Direct Bit” its faster.
- Save your decoder information sheet for the make and model of device. (if supplied).



JMRI Use – Important Points;

- Roster Screen...its important. Make sure to set new locomotives up in it when first programmed.
- Remember your 2 digit prefix assigned by the club for your 4 digit address.
- For Alternative Power Source use “NMRA digital only”.
- Consisting....why doesn't my locomotive work???
 - Is it still in advanced consist? Check it with the consist pane in JMRI and make sure its zero.



Questions....

- A little break in the action...
- Any one interested in the equipment I have been using in this demonstration ????