



Introduction to JMRI. The JAVA Model Railroad Interface

By Barry Rosier and Mike Dettinger



What is JMRI?

- *JMRI (Java Model Railroad Interface) is an open source (FREE) software that is used in conjunction with your DCC (Digital Command Control) system to:*
 - *Program your DCC-equipped locomotives.*
 - *Operate your layout (turnout control, signals, block detection, etc.).*
 - *Realistic operations (i.e.: switch lists, train builds, car forwarding, etc.).*
- *It has different program modules for the various functions it performs.*

Short history of JMRI

- In 2001 Mark Gurries gathered together with Bob Jacobsen, Dave Falkenburg, and John Jabour to discuss projects they had been working on.
- On October 28th of 2002 v1.1 of JMRI DecoderPro was released.
- Between 2003 to 2009 additional modules were released such as:
 - PanelPro
 - Layout Editor
 - Operations
- Bob Jacobsen over sees the JMRI project.

System Requirements

- Common Requirements
 - Using JMRI requires a combination of hardware and Java software.
 - JMRI® version 4.2 requires Java 1.8.
 - Version 3.10.1 requires Java 1.6 or later.
 - Version 2.14.1 requires Java 1.5 (or 1.6 if you wish for drag & drop).
 - Version 2.8 requires Java 1.5 or later.
 - Windows
 - Windows 7-10 and Vista SP2 can run the current JMRI test and production releases with Java 8.
 - Computers running Vista SP1 can run JMRI 3.10.1 using Java 1.7.
 - Windows2000 SP3 and XP systems can run JMRI 2.14.1 using Java 1.6.
- (con't)

- Mac
 - Mac OS X version 10.8.3 "Mountain Lion"/10.9 "Maverick"/10.10 "Yosemite"/10.11 "El Capitan" can run the current JMRI test and production releases with Java 8. Mac OS X version 10.7.3 "Lion" can run JMRI 3.10.1 using Java 1.7.
 - Mac OS X version 10.5.8 "Leopard" can run JMRI 2.14.1 using Java 1.6.
 - Mac OS X version 10.4 "Tiger" through 10.5.7 can run JMRI 2.14.1, because that's the last JMRI version that can run on Java 1.5, the last JVM available for "Tiger".
- Linux
 - Xunbuntu
 - Open SUSE
 - Mint
 - Raspberry Pi
- Download JMRI from <http://www.jmri.org/download/index.shtml>

Connecting to your DCC system

- Digitrax
 - Digitrax PR3
 - RR_Cirkits LocoBuffer
- NCE
 - NCE USB Interface for Powercab
- MRC
 - Cable computer interface
 - Wireless computer interface
- SPROG
 - Included
- Others
 - Manufacturer computer interface

Decoder Programming

- DecoderPro Interface
- Demo

The screenshot shows the DecoderPro software interface. At the top, there is a menu bar with 'File', 'Edit', 'Settings', 'Actions', 'LocoNet', 'Window', and 'Help'. Below the menu bar are buttons for 'Help', 'New Loco', and 'Identify'. The main area is titled 'Page mode programming' and contains a table of locomotive entries. The table has columns for ID, DCC Address, Icon, Decoder, Road Name, Road Number, Manufacturer, Owner, and Last Updated. The entry for '4mm railbus' is selected. Below the table, there is a detailed view of the selected locomotive, including a small image of the locomotive and various fields for its properties. On the right side of this view, there are radio buttons for 'Service Mode (Programming Track)', 'Operations Mode (Programming On Main)', and 'Edit Only'. Below these are buttons for 'Basic Programmer', 'Comprehensive Programmer', 'Throttle Labels', and 'Launch Throttle'. At the bottom of the window, there is a status bar with 'Programmer Is Available', 'Programmer Status : idle', and 'Active Roster Group : All Entries'.

ID	DCC Address	Icon	Decoder	Road Name	Road Number	Manufacturer	Owner	Last Updated
lvatt	1		DCX75					21-Nov-2010 09:11:40
sound sl75	1		SL 75					23-Jun-2010 17:24:34
DY1	2		DCX75					24-Aug-2011 16:05:36
z david eveleigh J68	3		DCX75					03-Jul-2010 12:02:21
zimo mx646	3		MX646N version 25+					01-May-2011 16:46:54
2mm Class 24	4		MX620 version 25+					19-Dec-2010 16:33:23
4mm railbus	4		Gold			Airfix/Branchlines	Nigel	24-Aug-2011 16:30:03
Armstrong	5		MX620 version 25+			HighLevel	Nigel	24-Aug-2011 16:29:22
Coronation	6		DCX75					05-Mar-2011 19:19:52
Blue 04	7		DCX74D					27-Dec-2010 20:45:46
stuart 14xx	7		DCX75				Stuart	24-Aug-2011 16:40:27
Class 02	8		DCX75					26-Aug-2011 15:34:40
z howard sound 8f	8		SL 75					29-Aug-2010 22:05:11
L&V Debus	0		MX620 version 25+					05-Mar-2011 19:19:52

ID: 4mm railbus
Operator:
Number:
Manufacturer: Airfix/Branchlines
Owner: Nigel
Model:
Decoder Family: Lenz Gold with 6th gen BEMF
Decoder Model: Gold
Filename: 4mm_railbus.xml
Date Modified: 24-Aug-2011 16:30:03

Service Mode (Programming Track) Operations Mode (Programming On Main) Edit Only

Basic Programmer Comprehensive Programmer

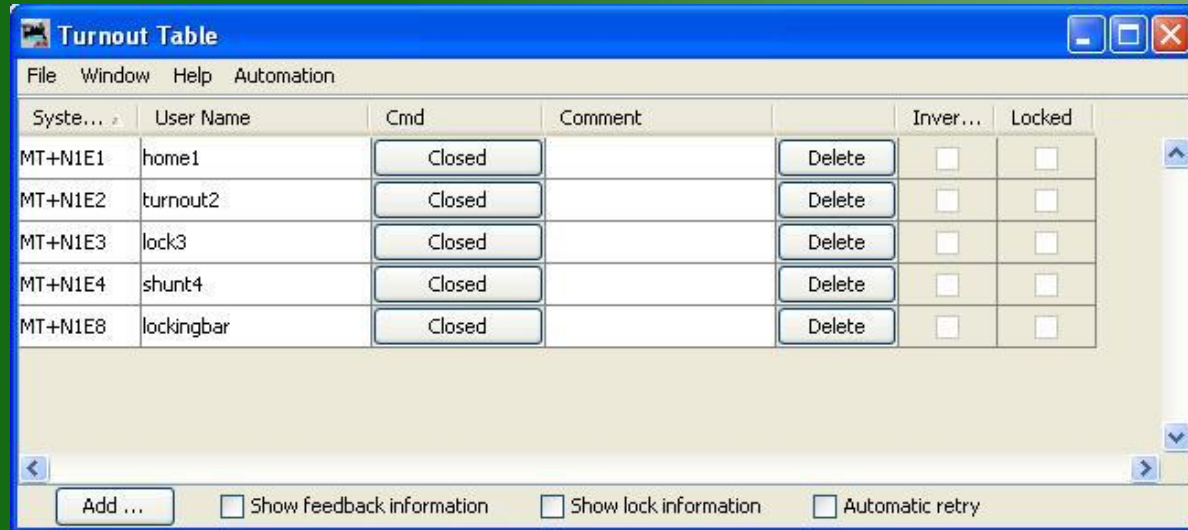
Throttle Labels Roster Media

Launch Throttle

Programmer Is Available Programmer Status : idle Active Roster Group : All Entries

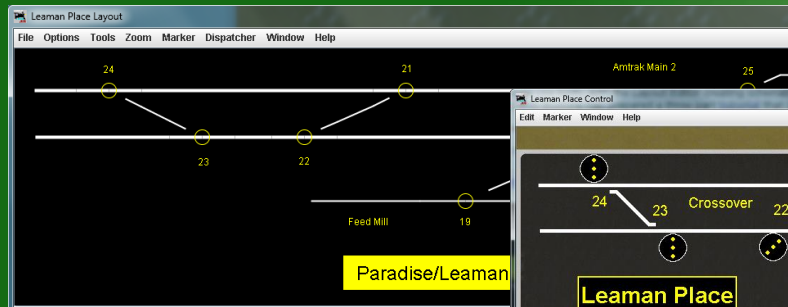
Layout Control (Turnouts)

- DecoderPro Interface
- Demo



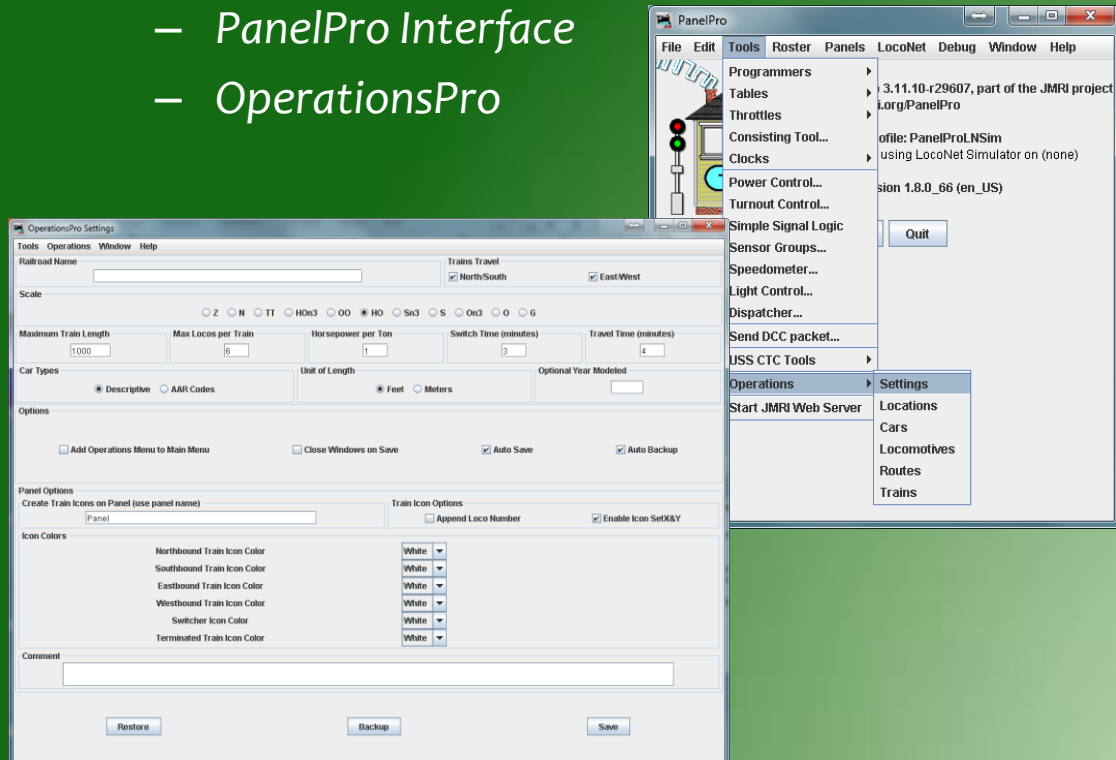
Other Modules (Brief Overview)

- PanelPro Interface
- Layout Editor
- Control Panel Editor



Other Modules (Brief Overview)

- PanelPro Interface
- OperationsPro



JMRI Introduction

Thank you for attending our clinic