

Overview of JMRI

Presented by

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DCC *by Design*

For Pr. William Model Railroad Club

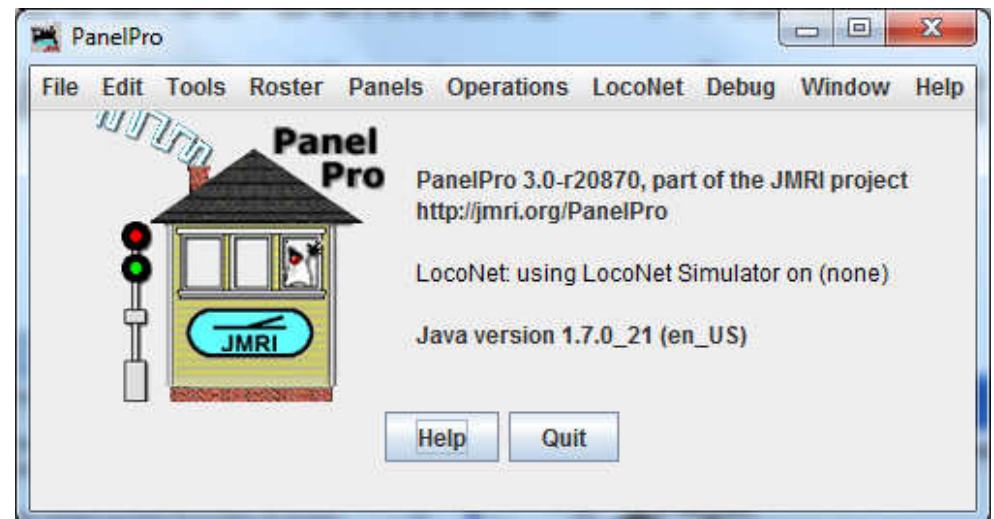
21 January 2014

Agenda

- Getting Started
- Introduction to JMRI Software
- Key Features
 - Decoder Pro
 - Decoder Pro 3
 - Panel Pro
 - Operations
 - Loco Net Tools

Introduction to JMRI

- JMRI – Java Model Railroad Interface



System Requirements

- JMRI
 - Open Source Software = FREE!!
 - Web site: <http://jmri.sourceforge.net>
 - Features shown from version 2.4 and upwards
 - Ver. 2.4 requires
 - Windows XP or Newer
 - Java Runtime Environment (JRE) 1.6 or higher
 - JRE is free from <http://www.java.com>
 - LocoBuffer USB for Digitrax Systems
 - I sell

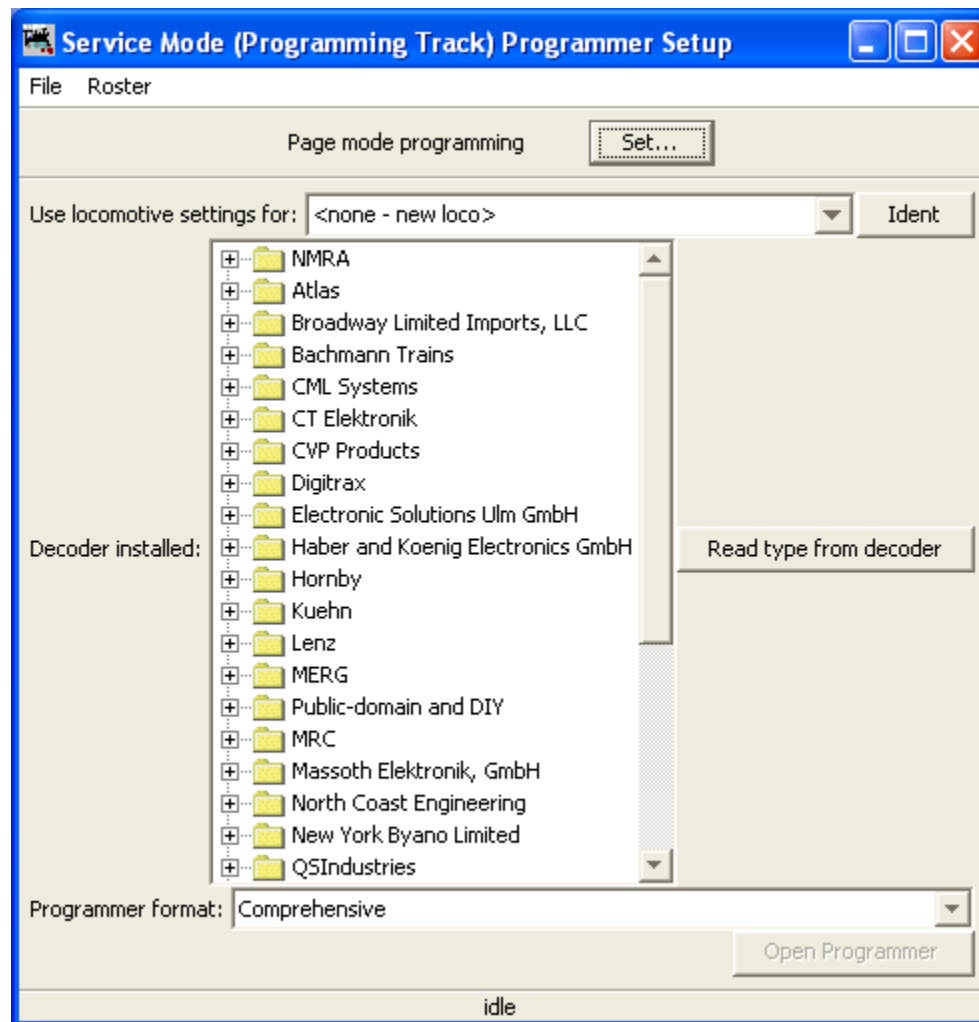
Decoder Pro

- Used to Program Decoders
 - Mainly Locomotives
 - Some Stationary Decoders
 - Digitrax DS54 (old)
 - Team Digital Products
 - Configure all features
 - Address
 - Sound level
 - Factory Reset
 - Saves Settings for fleet



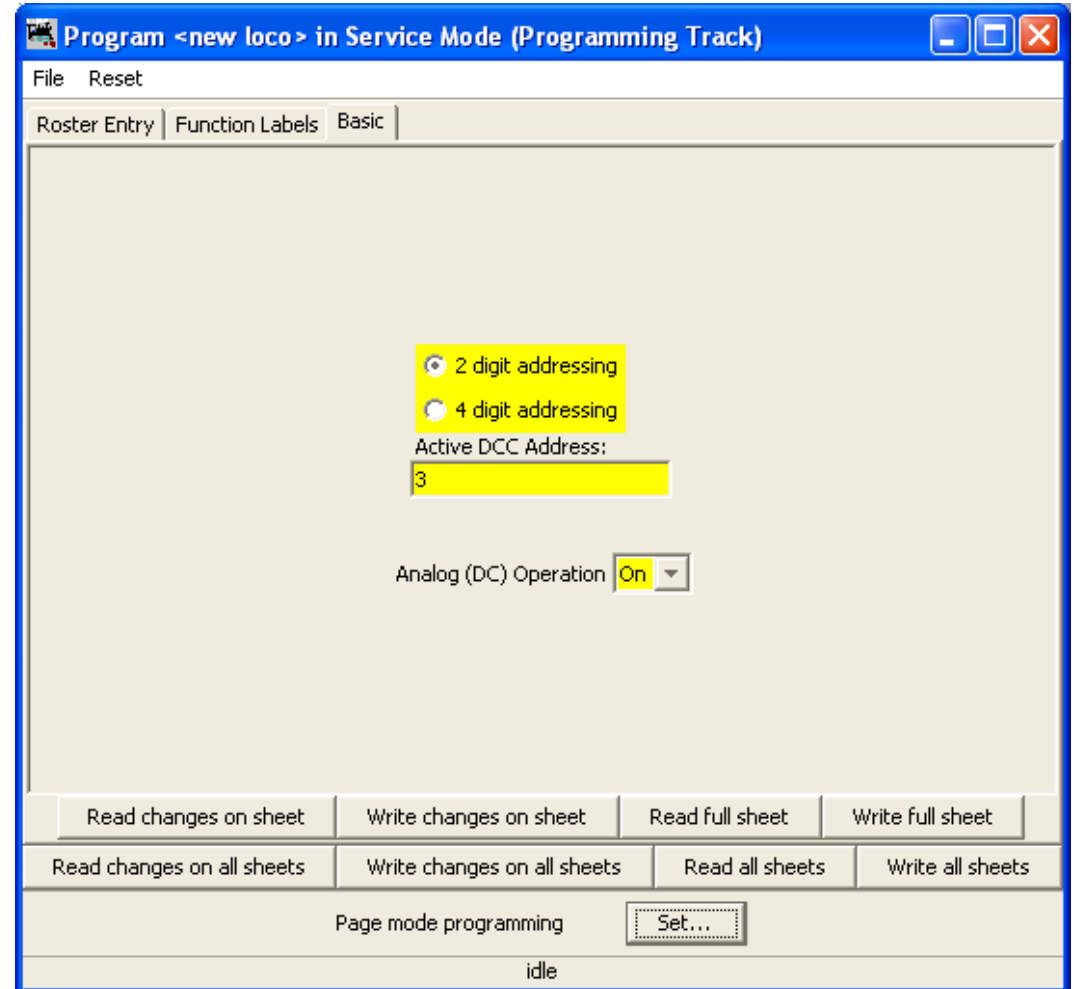
Basic Programming

- New Locomotive
 - Read Type from Decoder
 - Browse to find Decoder
- Existing Locomotive
 - From Roster



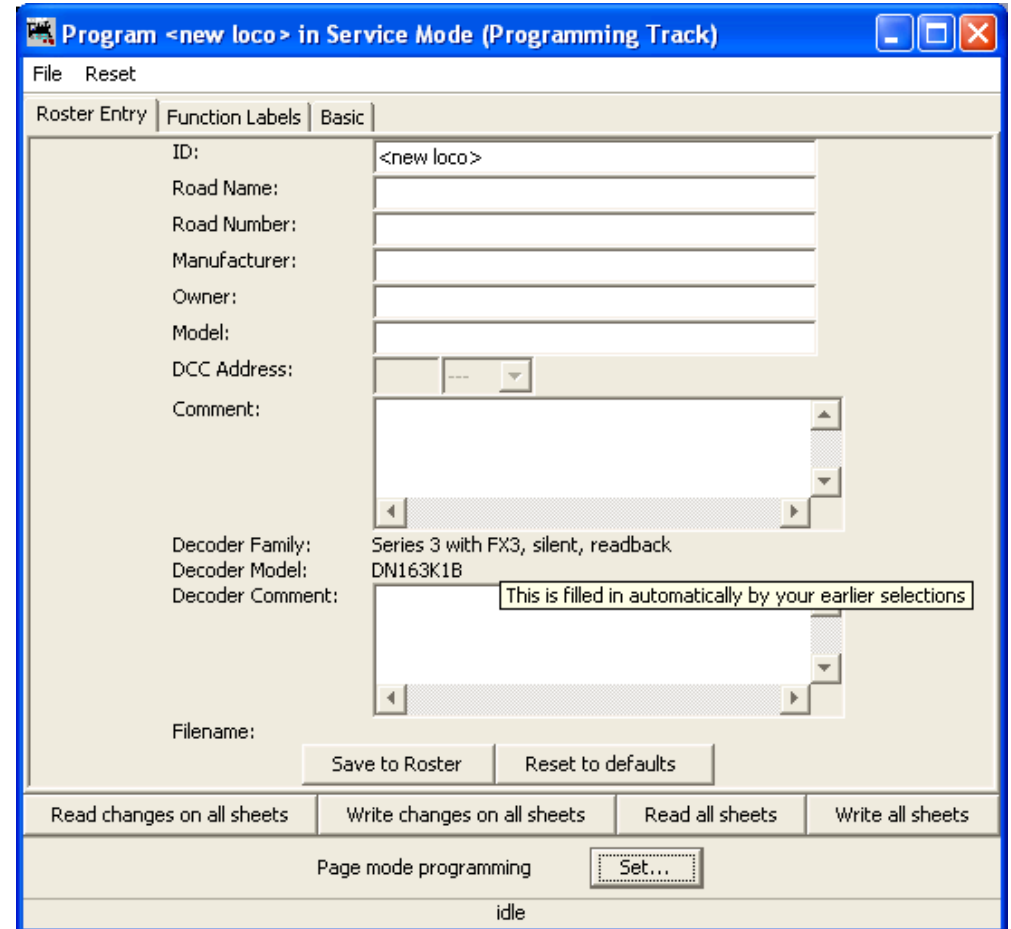
Basic Programming

- Screen
- Basic Tab
 - Address
 - 2 Digit
 - 4 Digit
 - Analog Operation
- Button Basics
 - Read
 - Write



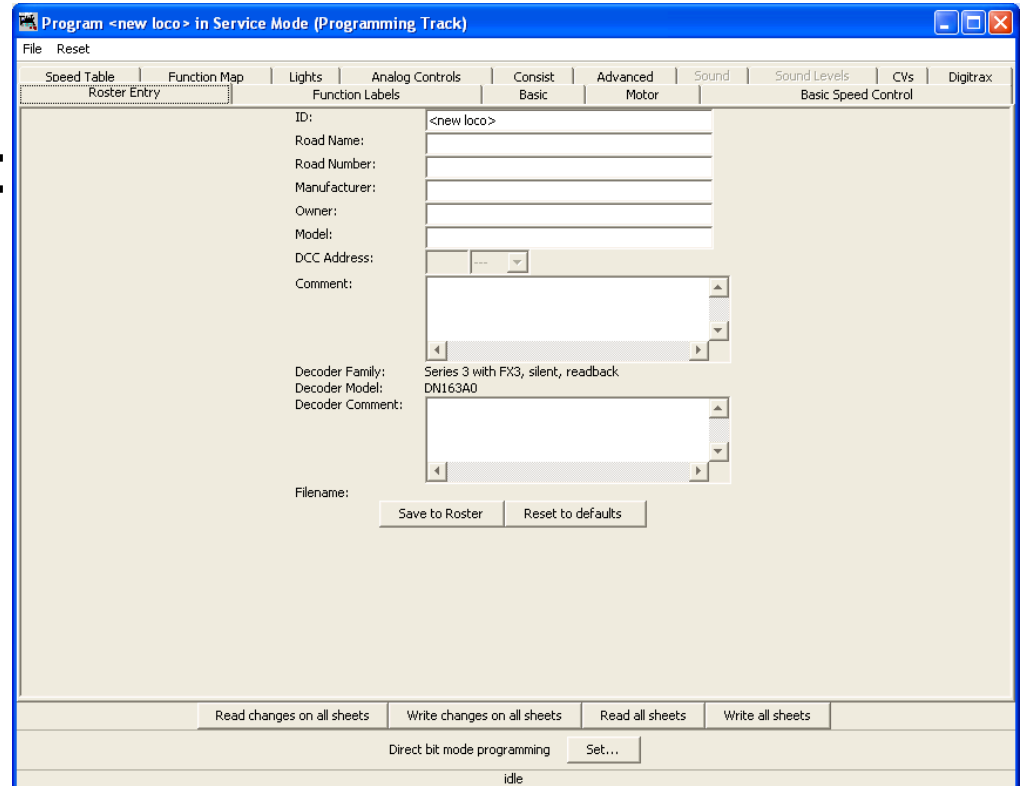
Basic Mode Programming

- Roster Entry Tab
 - Locomotive Info
 - Decoder Info
 - Owner Info



Comprehensive Mode

- Full Feature Mode
- Basic, plus the following:
 - Basic Speed Control
 - Speed Table Tab
 - Function Map Tab
 - Lights Tab
 - Sound
 - Decoder Specific



Decoder Pro 3

- New Opening Interface
- Same Programming Panels

The screenshot displays the Decoder Pro 3 software interface. The main window is titled "DecoderPro 3: All Entries" and features a menu bar (File, Edit, Settings, Actions, LocoNet, Window, Help) and a toolbar with buttons for "New Loco", "Identify", "Help", and "Unknown". The "Programming Mode" is set to "Paged Mode".

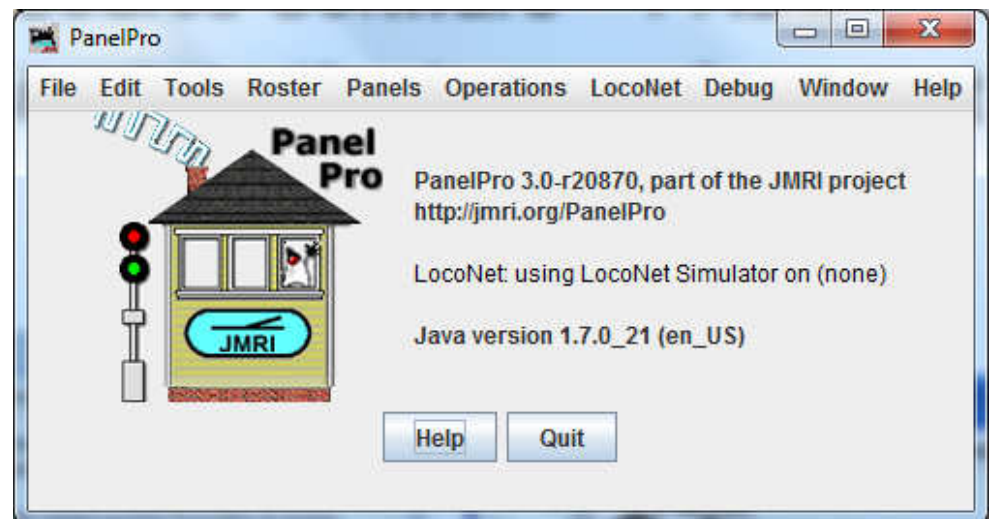
The main area contains a table of decoder entries with the following columns: Roster Group, ID, DCC Address, Icon, Decoder Model, Road Name, Road Number, and Kato. The table lists various decoders, including AMTK-05 P42 Genesis, AMTK-52 P42 Genesis, Brad CNW GP-9 1720, Brad GP9 UP 349, Brad Proto 1000 F3 Units, CN 6253 SD40-2, CR-4103 SD80MAC, CR-4103 SD80MAC N Scale, CR-5555 SD60M, CR-8146 GP38-2, CR-8673 SD50, NS-1642 SD40-2 N Scale, NS-3013 GP40, NS-3223 (SD40-2 H), NS-3223 SD-40-2 H, and NS-4805 DR-40R.

The bottom panel shows the programming details for the selected decoder, "Brad GP9 UP 349". The details include: ID: Brad GP9 UP 349, Road Name, Road Number, Manufacturer, Owner, Model, DCC Address: 349, Decoder Family: Series 3 with FX3, silent, readback, Decoder Model: DN163, and Filename: Brad_GP9_UP_349.xml. The programming mode is set to "Programming Track". Buttons for "Program", "Labels & Media", and "Throttle" are visible.

Service Mode Programmer LocoNet Is Online | Operations Mode Programmer LocoNet Is Online | Programmer Status: Idle

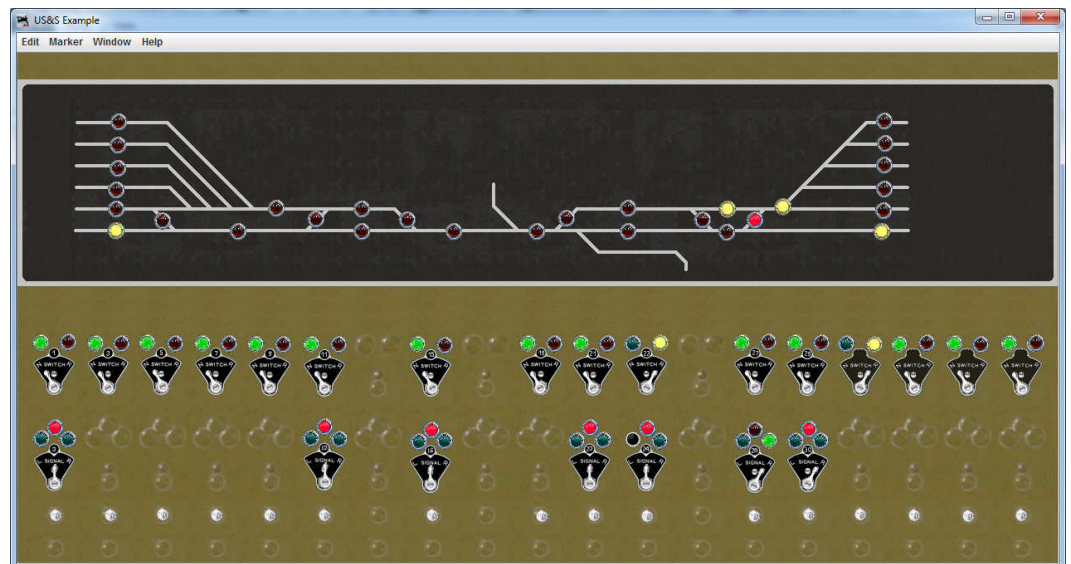
Panel Pro

- Create Layout Control Panels on Computer
 - Dispatcher
 - Yardmaster
- Create Automation for Layout
 - Route Control
 - Signal Control
 - Interlocks



Examples

- Union Switch & Signal
 - Amber Lights are Occupancy
 - Red on Track Plan is Interlocks
 - First row of switches is for Turnouts
 - Second row of switches is for Signals

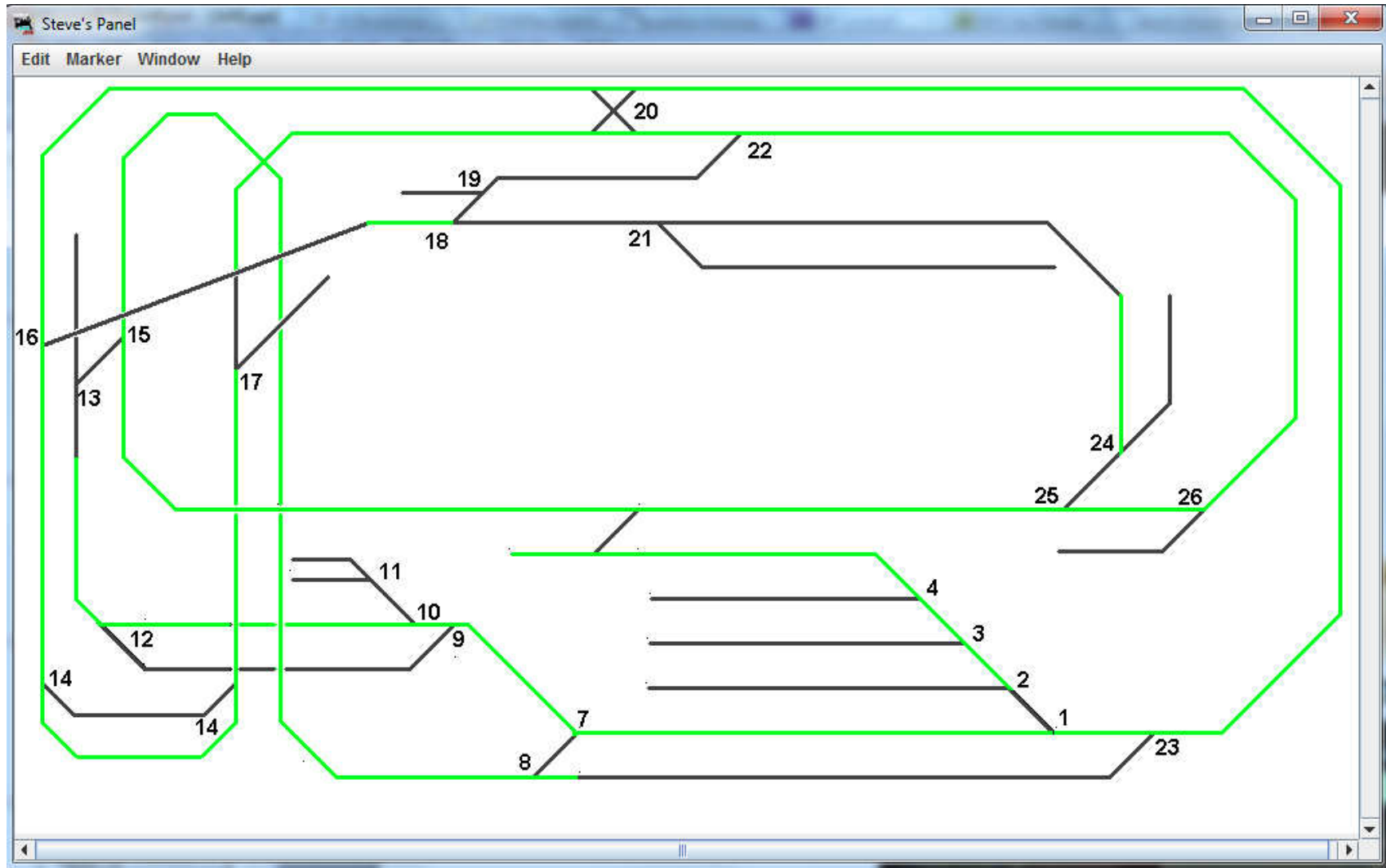


Examples

- PD&Q Dispatcher
 - Simpler Format
 - Turnouts Control
 - Occupancy Display
 - Signal Automation (Future)

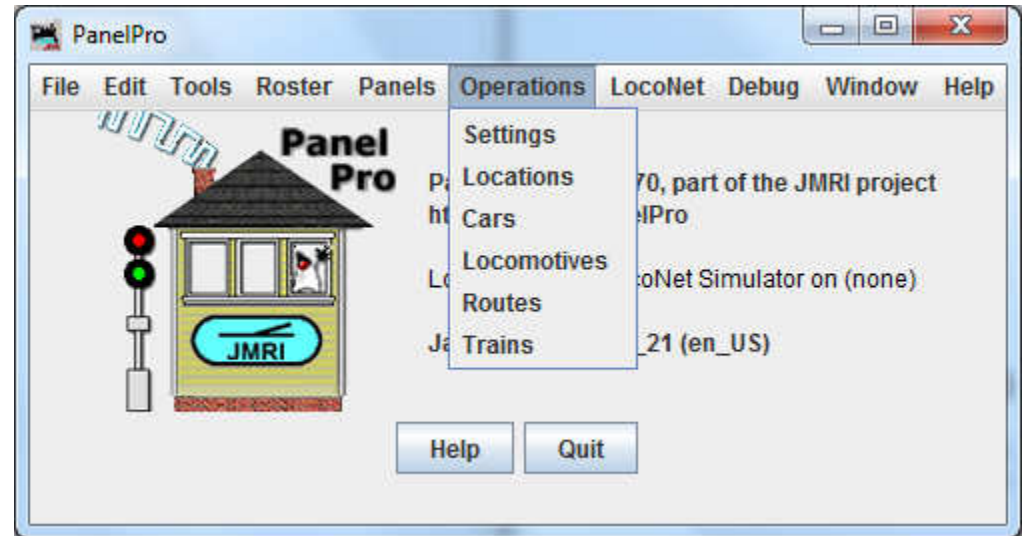


Layout Example



Operations

- Embedded in PanelPro
 - Almost another program
 - Generates lists for Train Crews and Yardmaster
- Major Steps
 - Identify Locations & Tracks
 - Staging, Spurs, Yards, etc.
 - Enter Locomotives & Cars
 - YardBoss Software can be Used
 - Generate Routes to be Use
 - Generate Trains and Schedule
 - Print Lists

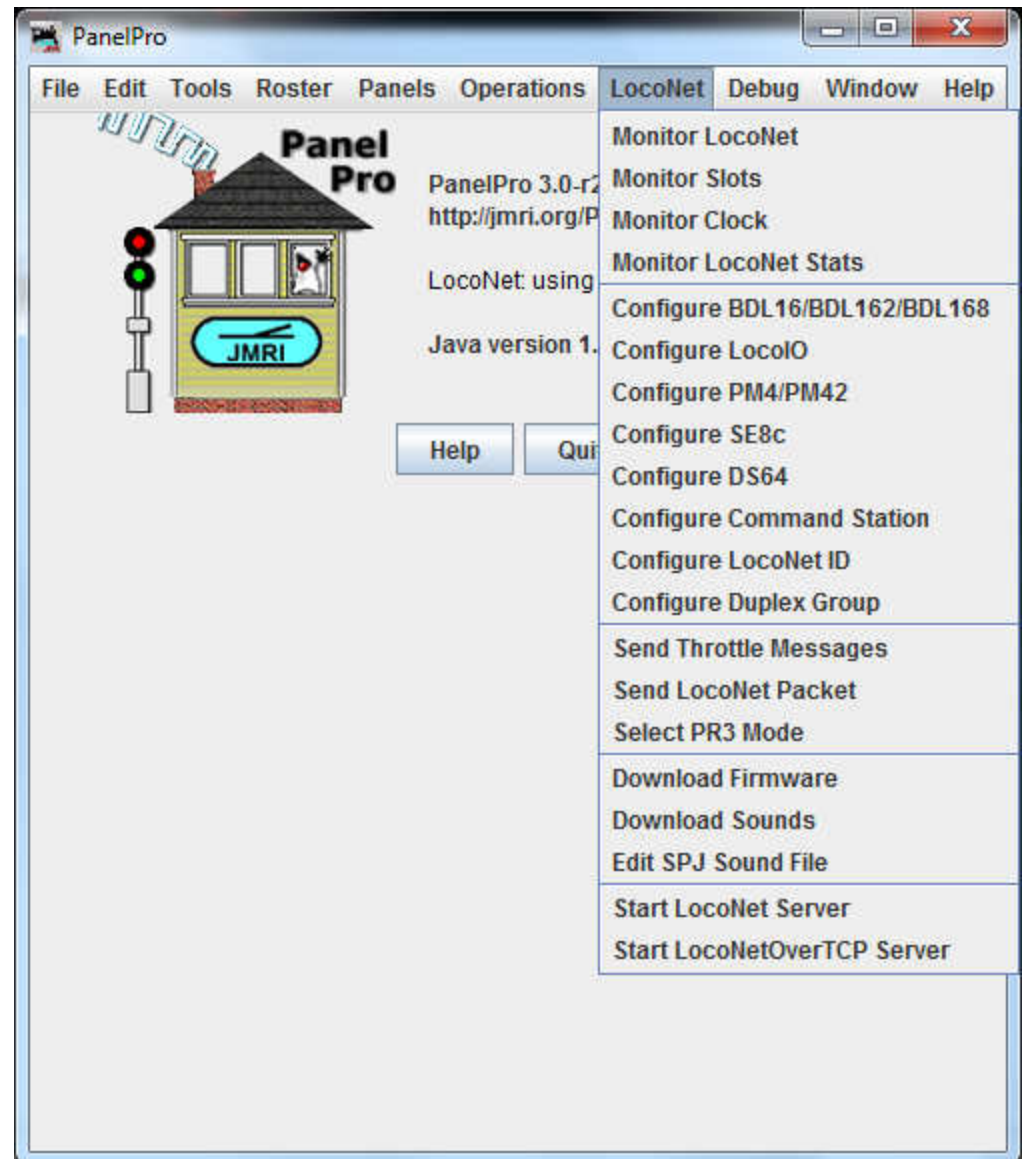


Examples

- Train Manifests
 - For Train Crew
 - Provides:
 - Locomotive & Caboose Numbers
 - Stops
 - Scheduled time
 - Cars to Pick Up
 - Cars to Set Out
- Switch Lists
 - For Yardmaster
 - Provides:
 - List of trains stopping at location
 - Scheduled time
 - Cars to be picked up
 - Cars to be set out

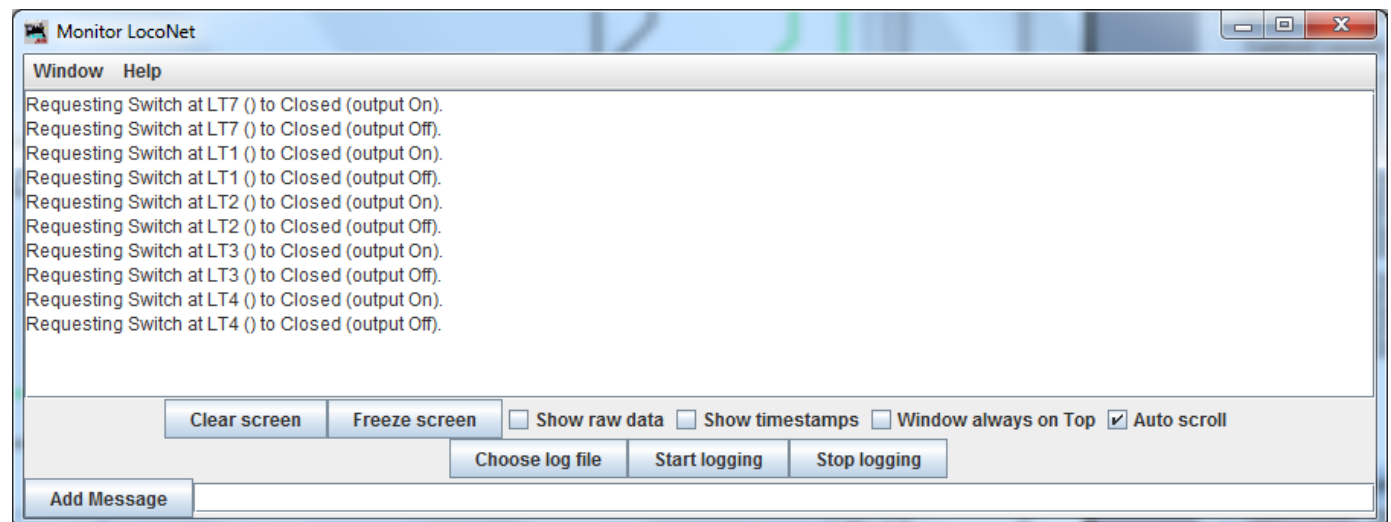
Loco Net Tools

- 5 Categories of Tools:
 - Monitoring
 - Configuration
 - Send Commands
 - Sound Decoders
 - LocoNet Server
- First Two Most Useful



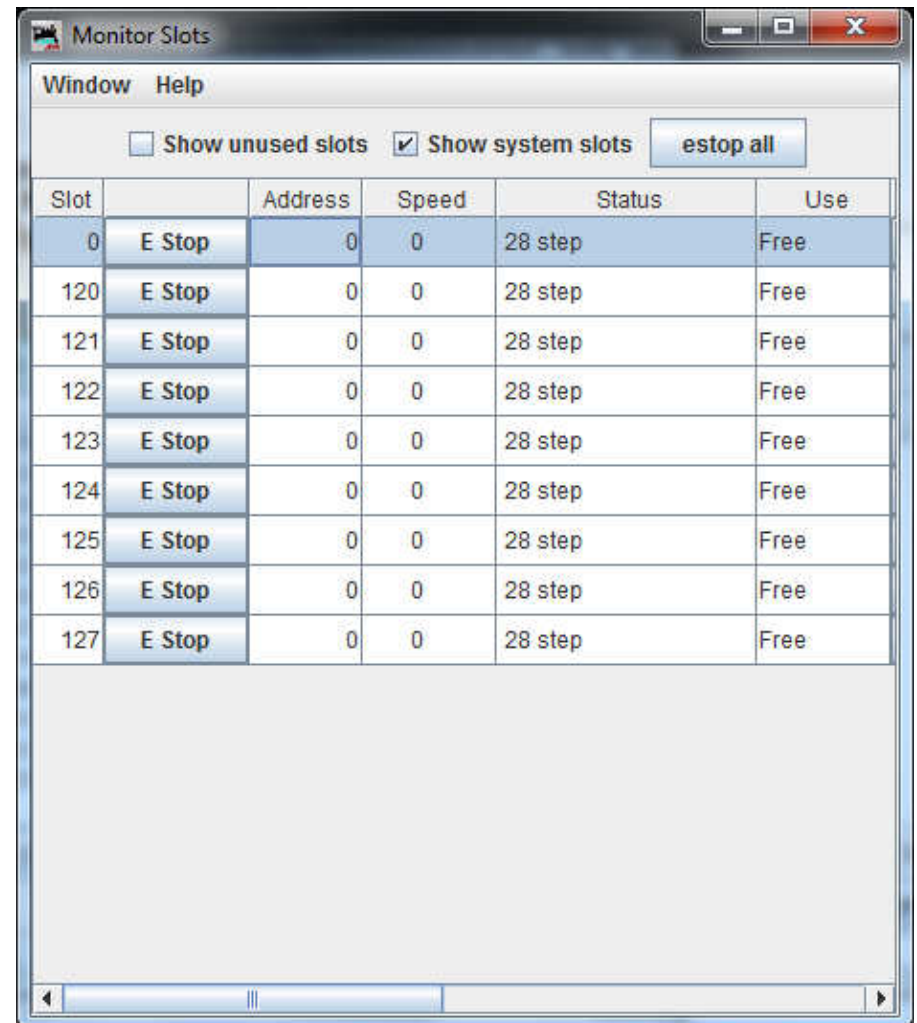
Monitor LocoNet

- Displays each command sent over LocoNet in plain English
 - Verify LocoBuffer is properly connected & receiving commands
 - Verify component(s) sending commands
 - Verify Automation is working correctly



Monitor Slots

- Command Station slots
 - Locomotive Address
 - Speed Setting
- Provides Emergency Stop (E Stop)
- Provide Means to release slots when full

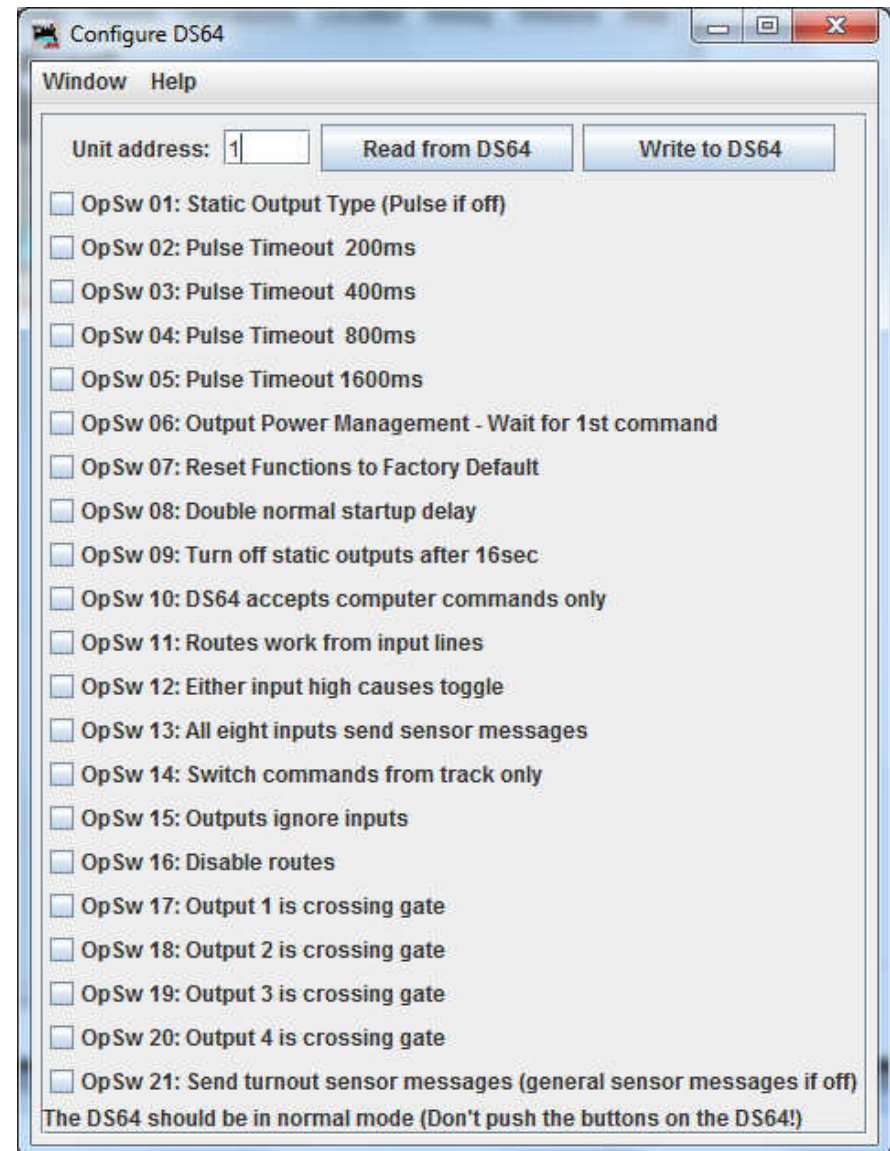


The screenshot shows a software window titled "Monitor Slots" with a menu bar (Window, Help) and control buttons. Below the menu bar are two checkboxes: "Show unused slots" (unchecked) and "Show system slots" (checked), along with an "estop all" button. The main area contains a table with the following data:

Slot		Address	Speed	Status	Use
0	E Stop	0	0	28 step	Free
120	E Stop	0	0	28 step	Free
121	E Stop	0	0	28 step	Free
122	E Stop	0	0	28 step	Free
123	E Stop	0	0	28 step	Free
124	E Stop	0	0	28 step	Free
125	E Stop	0	0	28 step	Free
126	E Stop	0	0	28 step	Free
127	E Stop	0	0	28 step	Free

Configure Group

- Provides Means for Setting Ops Switches for Components
- DS64 as Example



Questions



Back Up

- Requirements for JMRI
 - Hardware
 - Software

Getting Started

- Hardware
 - Programming Track
 - Command Station
 - Throttle
 - Computer Interface
 - Computer
 - Software
 - JMRI Suite
 - JRE program
- Can be one unit
- Provided on CD-ROM

Hardware

- Programming Track
 - Isolated
 - Switchable
 - Examples on CD-ROM
- Command Station
 - Readback capability
- Computer Interface
 - System Specific
 - Details on CD-ROM