Throttle Tool
User Guide

Revision 2004.11.21
Based on JMRI 1.5.3

Table of Contents

Introduction: What Is The Throttle Tool

The **JMRI Throttle Tool** is just one of the many digital railroading tools that are part of the **JMRI Project**. It has the ability to run a DCC decoder equipped locomotive around a layout using a computer keyboard and mouse for control instead of a hand-held throttle. This tool offers many of the same common features that can be found on most hand-held throttles, including the ability to control light and sound functions.

This user guide was intended to introduce those unfamiliar with the throttle tool. After reading through the sections identified below, and trying the throttle tool on your own, hopefully it will increase your enjoyment of the DCC model railroading hobby.

How To Use This Guide

This user guide was set up almost as a training guide. Each section identified in the Table of Contents on the previous page, is organized like a book. If you are new to using the throttles, follow each section chapter in sequence and the text will walk you through the process step-by-step — including the opening up of a new throttle layout, customizing it, and then saving all your hard work.

If you have already found the throttle layout tools, but are looking for more information about them, then hopefully there is a section or two that can also be of help.

Important Note: Multiple programmers are involved with the code development on this project. Some work on the "front end" of the code (which is the interface that you see on your computer screen), and others are working on the "back end" of the software for each particular DCC system needs. Although the "front end" should remain constant across all systems, there may be slight differences experienced on your particular DCC system and computer in comparison to what is described and shown in this user guide.

The examples and references shown in this guide are based on version 1.5.3 of the software, operating under Microsoft Windows 2000 Professional with a Digitrax system.

Where Do I Find The Throttles?

Chances are, if you are reading this text, then you probably saw reference to the "throttles" in the JMRI user group postings. And the first question that probably came to your mind was, "where the heck do I find these throttles?"

Well you've started at the right place. The first thing this section is going to do is show you how to gain access to the throttles. This section will also touch on the menu options that are available.

First, it is important to understand that the JMRI Project is a group of many "**tools**" for your railroad — with many contributions from different programmers. There are four primary startup applications available

- **DecoderPro** (the most widely and commonly known piece of the project)
- **JMRI Demo**
- **Loco Tools**
- **PanelPro**

For the purposes of this user guide, the **JMRI Demo** startup application was used for the purposes of writing these pages. However, you will find that many of the tools "cross over" to multiple startup applications. The **Throttle Tool** is a good example of this. No matter which of the above mentioned applications you start with, you will be able to find the throttles.

The Main (or Primary) Menu

In each of the startup applications noted above, there is always a "*primary*" main window displayed on your screen (similar to that shown below in figure 1-1). Close down this window and the whole application will terminate. This main window contains a primary set of menu options. This is where you will find most of the tools and options available — including the Throttles.

- Click on "Tools".
- This will open a sub-menu.
- Navigate your mouse pointer down until you locate "Throttles".
- This will open another sub-menu.
- This is the Throttles Menu (refer to figure 1-2).

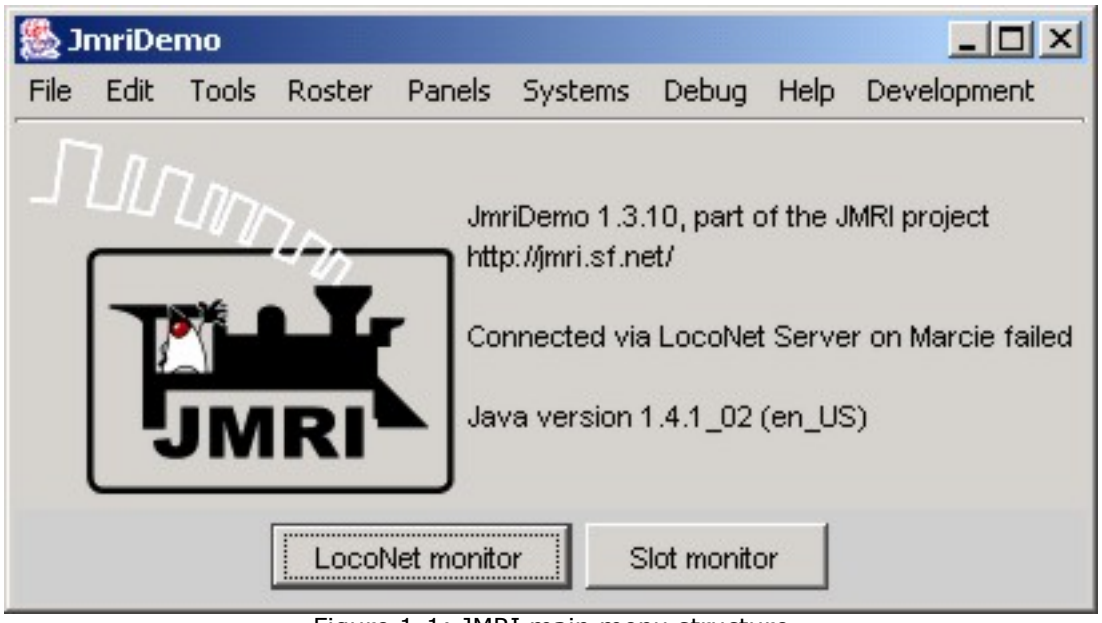

Figure 1-1: JMRI main menu structure

The Throttles Sub-menu

The Throttles sub-menu (as shown in figure 1-2 below) contains the following menu options, which are defined as:

- **New Throttle...** — opens a single new throttle window with default throttle settings enabled.
- **Save Throttle Layout** — saves one or more currently opened throttle windows to a user-named file on your hard drive.
- **Load Throttle Layout** — opens a previously saved throttle file. This file can contain one or more throttle windows depending on how the layout was originally saved.
- **Edit Throttle Preferences** — currently reserved for future implementation. It's purpose will allow you to set up your overall preferences for all throttle windows.

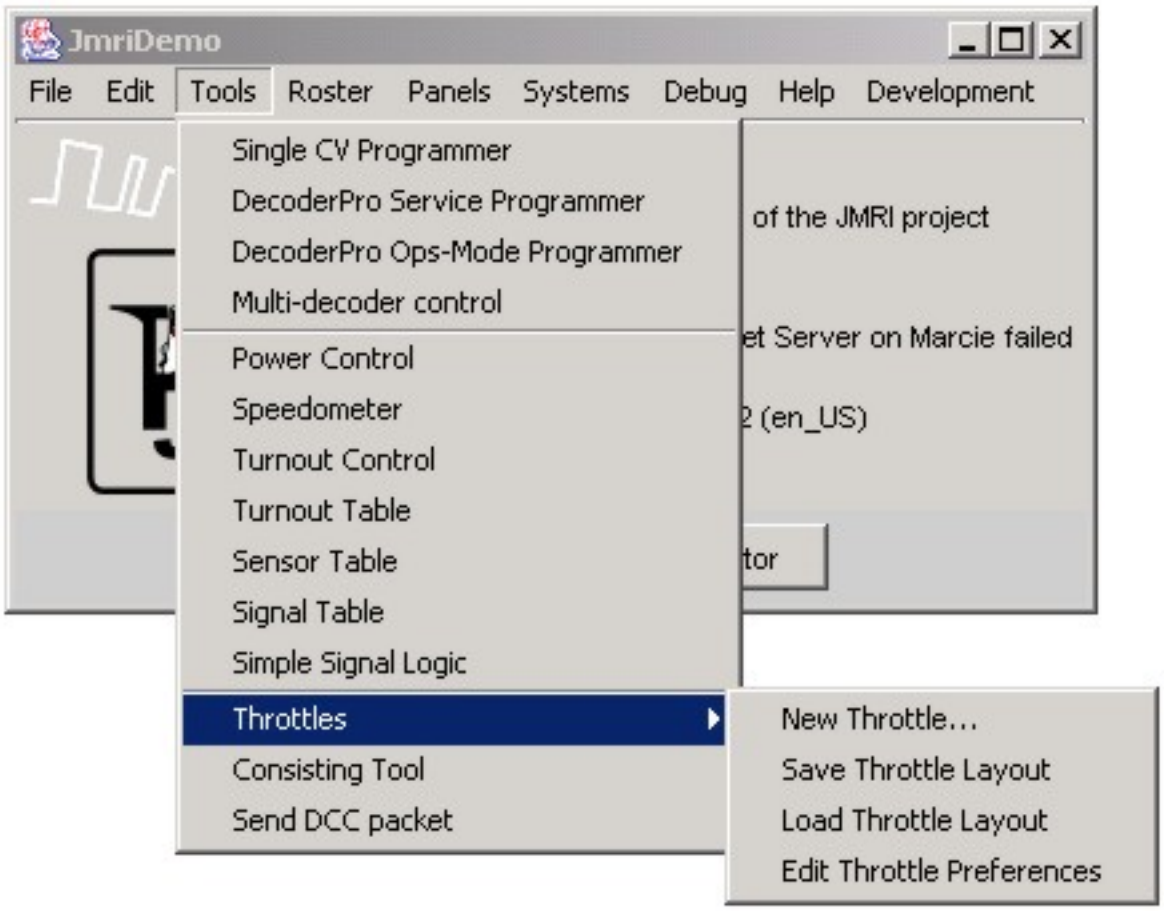

Figure 1-2: JMRI Throttles sub-menu structure

Open a New Throttle Window

This chapter will walk you through the process of opening up a new throttle window and then configuring it to run a locomotive on your layout. For the purposes of this user guide, we will be using a locomotive that has been equipped with a sound decoder. The decoder's address in our examples here is **8251**. If you are following along with a locomotive of your own while you read this, simply replace your loco's decoder address anywhere that "8251" is shown.

So let's get started.

Figure 2-1: New Throttle Menu Option

The first thing that we want to do is to open up a throttle window. As outlined in the **previous chapter**, this is accomplished by selecting the following menu options from the primary main window:

- **Tools**
- **Throttles**
- **New Throttle**

Structure of a Throttle Window

There are *three panels* (or sub-windows) associated with each Throttle window. These are identified as:

- **Control Panel** — contains a throttle slider to control the speed of the loco, a forward and reverse selector, an Emergency Stop action button, and an Idle action button (mostly used for sound equipped decoders).
- **Function Panel** — is used to associate the function buttons with the active output functions of the decoder.
- **Address Panel** — is used to identify the decoder's address, and to dispatch or release the identified address.

Important! These three panels are actually windows defined within an overall window. Please note that each of these panels contain their own "minimize" and "close" buttons — as well as can also be resized. You can actually minimize one or more of these panels within the Throttle window. This is being pointed out in event that you accidentally click on one of the buttons and the panel disappears on you.

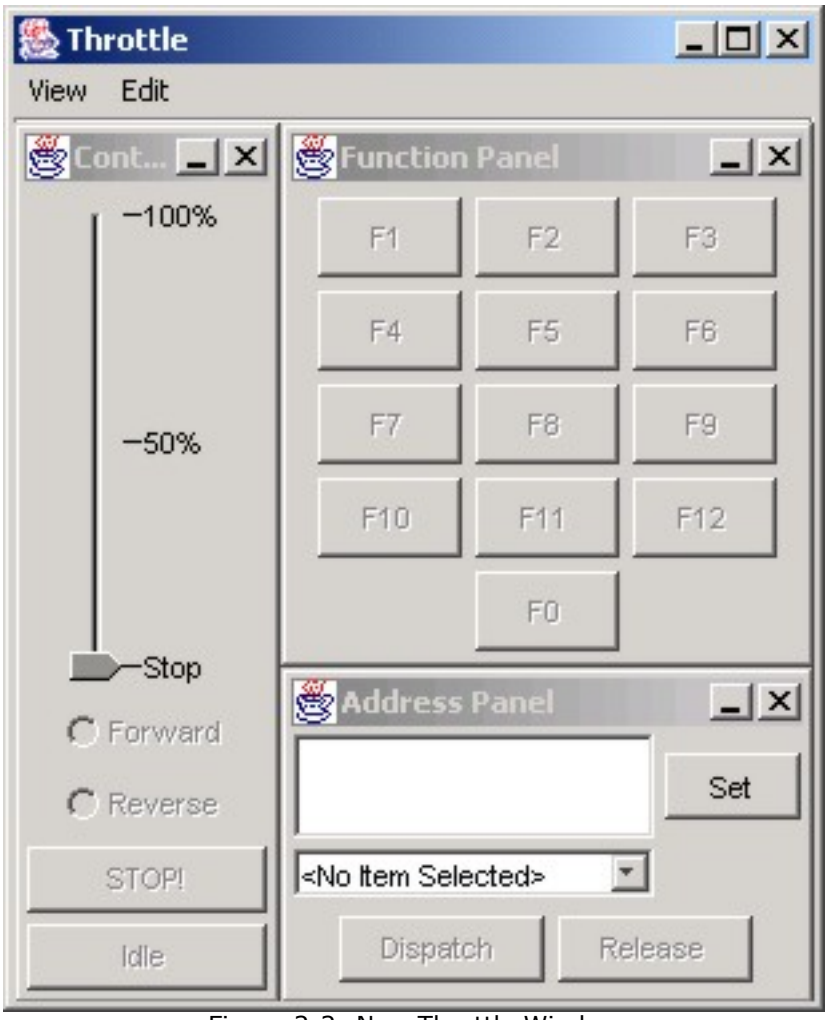

Figure 2-2: New Throttle Window

Configure The New Throttle

Now that we have successfully opened up the throttle window, the next thing we need to do is to configure the throttle for operation. We'll do this in two steps. The first will be to assign a locomotive's decoder address. Please note in Figure 2-2 above that all of the panels are pretty much disabled. This is because there is no address assigned yet. After establishing an address, the other options on the panels will become enabled.

Assign a Decoder Address to a Throttle Window

The first thing that needs to happen before any options or buttons in the window become active, is to assign a decoder's address in the "**Address Panel**". There are two ways that this can be accomplished.

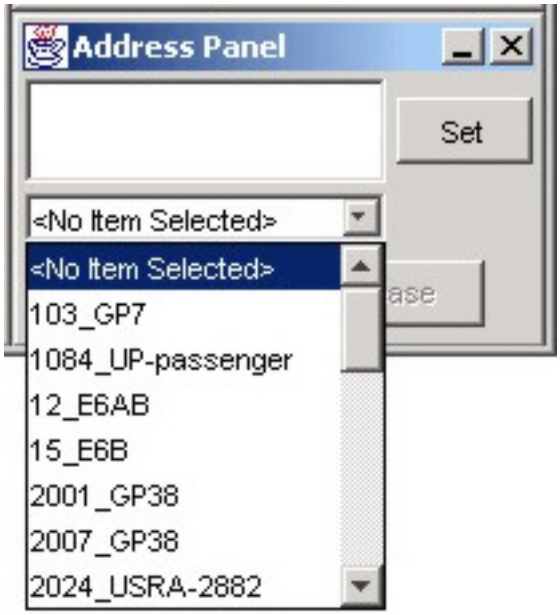

Figure 2-3: Address Selection

1. Manually enter the decoder's address in the large text box, then click on the "Set" button.

   Important! when manually entering an address, be sure to click on the Set button. Without this step, all throttle actions remain disabled.

2. Or, use the drop down list to select from the roster list (as shown in the figure on the right).

   Please note that when you select a loco from this list, it simply reads the decoders address from the roster file — it currently does not cross reference this to any saved throttle layout files.

After an address is selected, all other controls and options in the throttle window will become enabled. Two other option buttons also become active in the "**Address Panel**". These are described as...

Figure 2-4: Address Panel (with an active address)

- **Dispatch** — releases the decoder address back to the command station in a "dispatch" mode. Usually, only one address can be in dispatch state at the command station — all others are either "in use" or "idle" (released). The controls and options in the throttle window will become disabled until another address is "Set".
- **Release** — releases the decoder address back to the command station as "no longer needed". The controls and options in the throttle window will become disabled until another address is "Set".

Control Panel — Let's Run a Train

Now that you have established an address for the throttle, you should be able to run the train on your layout (if your layout is active and the address you entered is valid to a locomotive on the track). You do this using the "**Control Panel**" (see Figure 2-5). But here is where things get a little sticky.

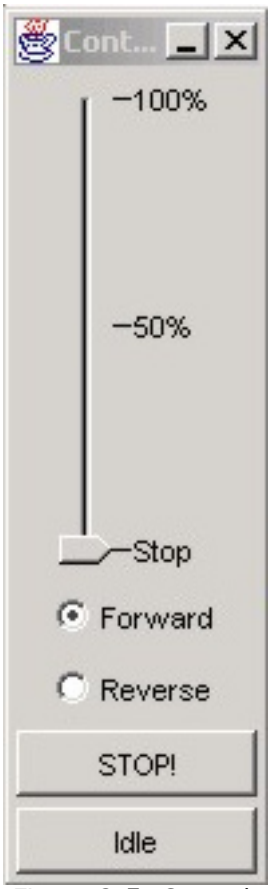

Figure 2-5: Control Panel

There are multiple combinations of DCC systems and computer platforms that make up for slight differences in the functionality of the throttles. The programmers are working hard at trying to get these throttles to function identically. But because of the these differences, you may discover that not everything noted in the following text will function as defined for your system.

Important! The "Control Panel" must have the "focus" for it to become active (and usable). In other words, it's window bar must be active. If you are following along with this text with your own locomotive and just entered an address in the Address Panel, you will discover that the Address Panel is the window with the current focus. None of the keyboard or mouse actions described below will move the train until the Control Panel has the focus. To make the Control Panel the active window, use your mouse pointer to click somewhere within the Control Panel.

Beware of where you click with your mouse pointer in the Control Panel.

- **If you click anywhere near the slider, your loco may take off on you unexpectedly (more on this below).**
- **If you click anywhere on the words "Forward" or "Reverse", you will activate that action — which isn't too bad — except if the loco is running in the opposite direction from what action you clicked on.**
- **Depending on your screen resolution size, if you attempt to click on the window bar itself, you may accidentally close down the Control Panel window or minimize it. This could of course immediately confuse any new user.**

So when first clicking in the Control Panel to make it the "active" window with the focus, and you know that your loco is stopped, it is suggested to click on the "Idle" button (if you know for fact that your loco is stopped), or the forward or reverse area (depending of course on the current direction of the loco). In other words, you want to click somewhere in within the border of the Control Panel window — yet not cause your loco to do something that you don't want it to do.

After a little experimentation, you will discover what is comfortable for your usage. The only point we are trying to make here is that many new users immediately get frustrated with the throttles because they can't get their loco to move — not realizing that the Control Panel does not have the focus. Or they have clicked on a function button (more on these below), which then changes the "active" window to the Function Panel.

Keyboard Control

There is a group of keyboard action keys that have been defined as "**standard**" across all DCC systems and computer platforms. They are identified in the following table:

KEY*	ACTION
+	Increase speed by 1 step of each press of the key
-	Decrease speed by 1 step of each press of the key
*	Idle (set speed to 0, any speed momentum is enabled)
/	Emergency Stop! (instantly halts the locomotive)
Up arrow	Forward direction
Down arrow	Reverse direction
Left arrow	Increases speed by 1 step for each press of the key
Right arrow	Decreases speed by 1 step for each press of the key
Page Up	Increases speed by approximately 10% for each press of the key
Page Down	Decreases speed by approximately 10% for each press of the key

Note: *The implied keys noted above (with the exception of the arrow keys) are those found on the numeric keypad of the keyboard. For laptops and other keyboards that don't have a separate numeric keypad, experimentation on your part may be needed to find the correct key combination. The arrow keys are usually found grouped in their own separate area.

Using the standard key actions are pretty easy. After making the Control Panel have the active focus, each click of the + on the numeric keypad should increase the speed on your locomotive. Each click of the - key on the numeric keypad should decrease the speed of your locomotive. To bring the locomotive to a stop, a single click of the **/** key on the numeric

keypad will set the speed of the locomotive to zero.

Of course, in addition to the standard keyboard actions, what is the point of having a mouse if you can't use the mouse to control your trains. So now let's discuss how to move your locomotive using the mouse on your computer.

Mouse Control

You can perform all of the keyboard actions noted above by using your mouse pointer within the Control Panel window. We'll start by defining the Forward, Reverse, Stop and Idle controls. They are pretty simple to use.

BUTTON	ACTION
Forward	Changes the direction of the locomotive to forward.
Reverse	Changes the direction of the locomotive to reverse.
STOP!	Clicking on this button will perform an immediate physical stop of the locomotive. If any braking momentum feature is enabled for the decoder, it will be ignored — halting the locomotive immediately. When using a sound decoder (such as a Soundtraxx DSD-150), and the decoder has a "sound shutdown action" (like in the diesel decoders), the associated engine shutdown sound will occur.
Idle	Clicking on this button will set the speed of the locomotive to 0. If any braking momentum feature is enabled for the decoder, it will still be active — slowing the locomotive down to a stop. When using a sound decoder (such as a Soundtraxx DSD-150), the engine sound will remain in its "idle" state.

THE SLIDER BAR

The slider bar can function differently for each user depending on several factors. This user guide is not going to try to identify all of the different possibilities. Instead, it is going to identify several of the primary ways that the slider bar can work. At least one of these methods should work for you. You may discover that your setup can utilize more than one of these. A little experimentation on your part may be required.

1. **Slider Method 1**
   - Clicking anywhere above the current slider pointer position will INCREASE the loco speed by 1 speed step. For example, if the locomotive's current speed setting was 23, then a single click will advance the speed to 24. Another click will increase the speed to 25. Another click...to speed step 26. Another...to speed step 27. And so on...until it reaches the maximum speed steps for your system. This action has the same effect as using the + key on the numeric keypad.

   - Clicking anywhere below the current slider pointer position will DECREASE the loco speed by 1 speed step. For example, if the locomotive's current speed setting is 21, then a single click will decrease the speed to 20. Another click will decrease the speed to 20. Another click...to speed step 19. And so on...until it reaches speed step 0. This action has the same effect as using the - key on the numeric keypad.

Note: Clicking too far below the slider (especially when close to the bottom of the slider bar) may not have any effect because you are actually clicking on the "Forward" option. Therefore, it is suggested that when decreasing speed with this method, that you click on the word "Stop" — not the emergency stop button (STOP!) — but the word "Stop" located at the lower end of the speed slider.

Note: If the decoder has acceleration or braking rates enabled, the loco will speed up or slow down accordingly. If no momentum values are enabled, the loco will speed up or slow down abruptly.

2. **Slider Method 2**
   - Click and hold the left mouse button over the slider pointer and then drag it to a speed that you wish, and release the mouse button. This will send a "set speed to" command to the decoder.

Note: If the decoder has acceleration or braking rates enabled, the loco will speed up or slow down accordingly. If no momentum values are enabled, the loco will speed up or slow down abruptly to the speed set when the mouse button was released.

3. **Slider Method 3**
    - Clicking anywhere above the current slider pointer position will increase the slider pointer to the place where the mouse pointer was clicked. For example, if the locomotive's current speed setting was around 25% of the slider bar, and the mouse pointer was positioned near approximately the 75% point the slider bar when clicked, then the speed of the locomotive would be changed to approximately 75%.

    - Clicking anywhere below the current slider pointer position will decrease the slider pointer to the place where the mouse pointer was clicked. For example, if the locomotive's current speed setting was around 50% of the slider bar, and the mouse pointer was positioned approximately around the 25% point on the slider bar when clicked, then the speed of the locomotive would be changed to approximately 25%.

Note: If the decoder has acceleration or braking rates enabled, the loco will speed up or slow down accordingly. If no momentum values are enabled, the loco will speed up or slow down abruptly.

Note: Clicking too far below the slider (especially when close to the bottom of the slider bar) may not have any effect because you are actually clicking on the "Forward" option. Therefore, it is suggested that when decreasing speed with this method, that you click on the word "Stop" — not the emergency stop button (STOP!) — but the word "Stop" located at the lower end of the speed slider.

IMPORTANT!

The easiest way to stop a locomotive for any of the methods outlined above is to simply click on the "**Idle**" button located at the bottom of the Control Panel window.

Or more abruptly, you can also click on the emergency stop button:
STOP!

If you have discovered that your system works in some way different from any of those shown above, then you have simply found yet another method.

Acquiring a Dispatched Locomotive

When the decoder address is first "Set", the software queries the current status of the decoder. This includes the current direction of the locomotive, its current speed, and what function buttons are on or off. The software will set the current direction indicator and identify any functions that are "active" (in the "on" state). But, if the loco is moving, the loco's speed is not established on the Speed Control slider bar.

Note: At this time, the slider bar does not automatically correspond to the actual speed. This is important to understand because of what action you are going to see when you first click on the speed slider bar. When you first "Set" a decoder address, the slider bar is set to the zero (0) position. So if you acquired a locomotive that is actually moving and you click on the slider bar, it is going to set the speed to zero (or wherever you click and set the slider bar pointer).

A future enhancement of the throttle feature will be to synchronize the slider bar pointer accordingly. Until then, just beware of this little reaction.

The Function Panel

The Function Panel has 13 function buttons available for each throttle window. Most decoders currently don't handle 13 functions. (If there are any, please let me know.) But the software is prepared for the future. Some of the more newer hand-held throttles also have 13 function buttons (including the lights), so these electronic throttles follow these newer hand-helds.

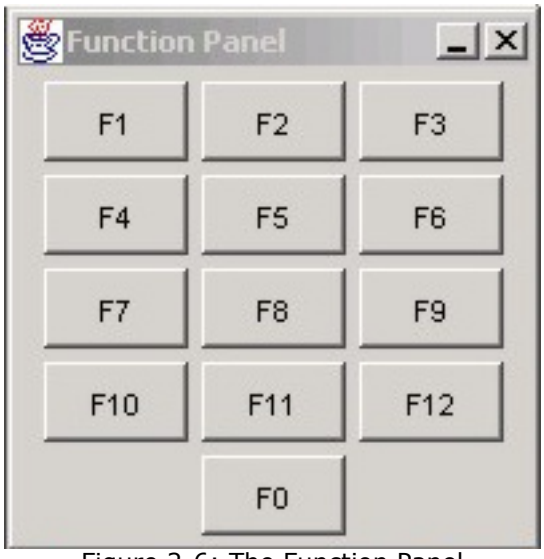

Figure 2-6: The Function Panel

Clicking on the function buttons correlate to pressing the same function button on a hand-held throttle. The F0 function is normally used for the lights.

This is the basic functionality of the Function Panel. All buttons function like an on/off toggle — click once to turn "on"; click again to turn "off".

The next chapter provides more advanced features for customizing the Function Panel buttons.

Advanced Configuration of the Function Panel

When a new throttle window is initialized, all function button labels are set up with a set of defaults (F1...F2...F3...etc.). These are closely related to hand-held throttles. But one of the cool features that the JMRI Throttles have to offer over hand-held throttles, is the ability to customize the button labels. In addition, each button can be hidden from view or switched to an "unlocked" button.

The example image on the right shows the default Function Panel window. When the mouse pointer hovers over the top of the button, a **right click** of the mouse will display a menu — with the only option on this menu at this time being "**Properties**".

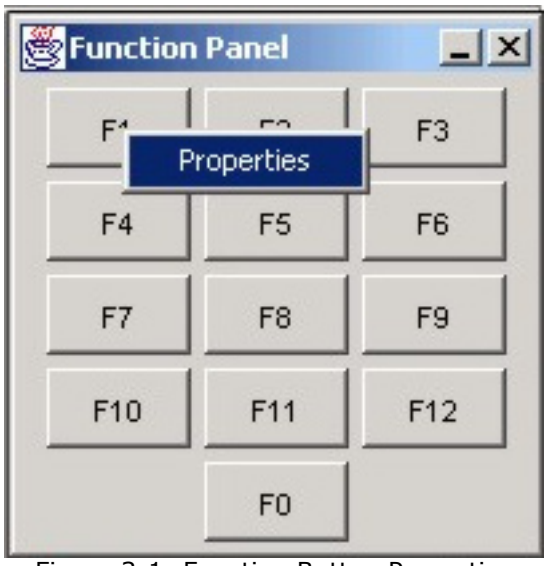

Figure 3-1: Function Button Properties

Figure 3-2: Edit Function Button

When the "**Properties**" option is clicked on, the "**Edit Function Button**" window opens (see the example image on the left).

- **Function Number** — associates the button with a function number
- **Text** — customizable button label text
- **Font Size** — size of text displayed on button
- **Lockable** — identifies whether the button acts as an "on/off" toggle switch; or as a momentary switch
- **Visible** — identifies whether the button is visible in the Function Panel window

By default, the **Function Number** is associated with the button number that you initially right-clicked on. For example, in the figures shown above, function number "1" (F1) is being edited. It is recommended that you leave this number as is, however, you can change this to a different function number if you really wish. An example of why you might want to do this is if you really want the "lights" button — which is usually F0 (located as the last/bottom button by default) — to be located as the first button in the Function Panel.

Warning! If any modifications are done to the "Function Number" field, verify to make sure that no two buttons are assigned the same function number — some unwanted consequences may occur.

The **Text** field will be the most welcome and modified field. By default, it is set similar to hand-held throttles: F1...F2...F3...etc. The content of the field is pretty much open to the imagination, however, there is going to be a point where the length of the text is not going to fit on the button. The **Font Size** field is available to also assist in getting the wanted text to fit on the button. A little experimentation will be required here to determine what looks good for you — and what will fit.

The **Lockable** check box may be a little confusing at first. When enabled — as it is by default — it simply means that when the button is clicked on, it will "lock" itself in either an "on" state or an "off" state. In other words, the button will act as a toggle switch — click once to turn the function "on"; click again to turn the function "off". The opposite of this action is what happens when the check box is **disabled**. Then the button acts like a momentary switch — supplying a momentary "on" command for as long as the mouse button is clicked *and held* over the button. When the mouse button is released, an "off" command is sent to the function. A good example of where one might want to use this is when customizing a throttle setup for a sound decoder. The horn/whistle is closer to functional when this option is disabled. Depending on the speed of the computer system and the DCC system, short and quick click and releases would provide a short blast of the horn or whistle. Holding down the button a little longer would produce a longer held blast of the whistle.

The **Visible** check box allows for the "removal" of unwanted buttons. By default, all function buttons are enabled as "visible" so that they can obviously be seen. But if there is only a single function being used — for example the "lights" (F0) — then this option does provide the ability to "hide" all of the other buttons.

Warning! Disabling the "Visible" check box should be one of the last steps performed during this customization process. The reason for this is that once the button is marked as "invisible" (by removing the check box), it is indeed invisible to the user and therefore can't be right-clicked on with the mouse in order to get this "Edit" window back. It is a bit more difficult to restore a hidden button afterwards. This is going to be changed at some point in the future with a menu option that will allow a hidden button to be restored. Until then, use caution that when you remove the check box — you really mean it.

The image shown on the right shows an example of a finished customized function panel. This particular example was made for a steam locomotive with a sound decoder installed so there are additional functions needed for some of the sounds.

These function buttons were all set up using the above outlined procedures.

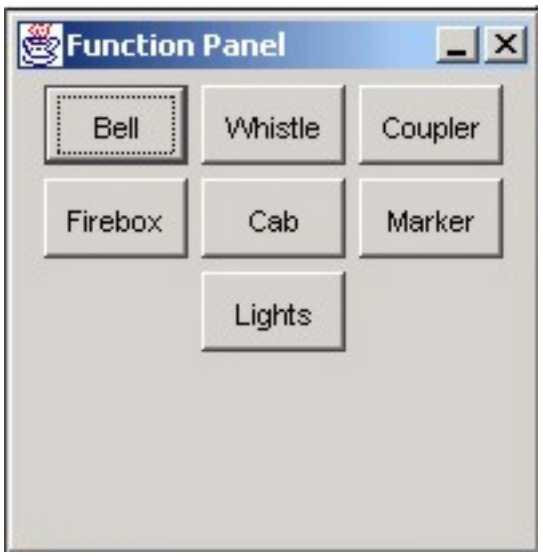

Figure 3-3: Customized Function Panel

Throttle Window Menu Options

There are a few optional options that affect the general preferences of the overall JMRI Throttle window. These are found in a couple of menu options located just under the main title bar of the window.

View (Panels)

Clicking on the "View" menu option displays a small menu of 3 items — by default, each with a check mark preceding the item. This corresponds to the 3 sub-windows (Address Panel, Function Panel, & Control Panel) that make up the overall throttle window.

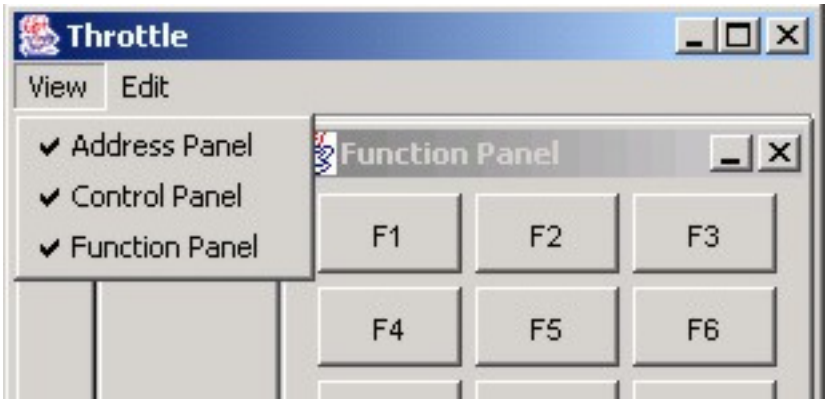

Figure 3-4: View Menu Options

As noted in **Chapter 1**, because each sub-window has a minimize and close buttons, if one gets closed down in error, this menu option allows you to restore the window again.

Another way to use this option is when using the features of the throttles for decoders that are not associated with a motor (such as a lighted passenger car or caboose or a Fred unit). In these cases, critical screen real estate can be saved by being able to disable (or close down) the Control Panel. Be a little creative with the window resizing, and you could have several of these custom throttle windows in the same area as one single complete throttle window would take up.

Edit (Frame Properties)

Clicking on the "Edit" menu option displays a single-optioned sub menu of "**Frame Properties**". This feature allows you to title the overall throttle window.

By default, the title of the overall throttle window is titled "**Throttle**" and is displayed within the window border (see the figure on the right).

Figure 3-5: Edit Frame Properties

Figure 3-6: Frame Properties Dialog

When "**Frame Properties**" is clicked on, a single field dialog box will appear. Type in the title for your throttle window in this field. For example, "Santa Fe #8259 EMD-SD60" may be descriptive enough as a single locomotive. If the throttle is for a consist, you may want to identify it something like "Consist #221". Your only limitation is how many characters you can fit into the width of the window title bar.

Saving a Throttle Layout

A new throttle window can be started and a DCC address established to run a train around a layout, and then close down the throttle window when done with it. This of course loses the configuration that you established during this throttle session. And this is fine if you are running a test of sorts on a loco that you have no intention of running by one of these computer throttles. Therefore, closing down the throttle window to eliminate it would suffice.

But what if you don't want to keep establishing a new throttle window each time for one or more locomotives that you intend on running from your computer?

Figure 4-1: Save Throttle Layout

If you were following along in the **previous chapters** with building up a new throttle layout and got your train moving, then the next question that probably comes to your mind is, "how do I save it?"

Following the directions provided in **Chapter 1** for locating the Throttle Menu, locate the option that says "**Save Throttle Layout**" (see figure 4-1 on the right). Clicking on this menu option will display a "**Save As**" dialog box see figure 4-2 below).

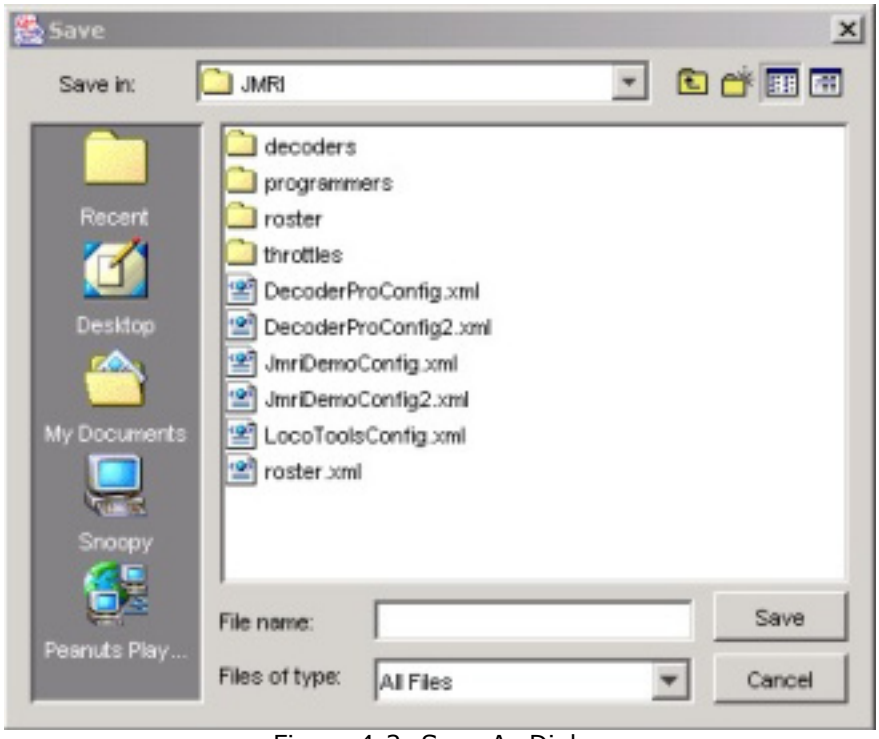

Figure 4-2: Save As Dialog

By default, it should show the directory where your roster file is located. You can save it to this directory if you wish, or you can save it to another location of your choosing. For example, the figure on the right shows a "Throttles" folder (sub-directory) where all throttle layout files are saved.

After entering a file name of your choosing (and optional location) that best supports your railroad environment, the current throttle layout will be saved with all preferences — including window size and location.

After the save is successful, you can close down the throttle window.

Note: the "Save" option will save all currently opened throttle windows — they are not saved as individual throttles. This is explained in more detail below.

Saving Multiple Throttle Windows

The above instructions are pretty simple when working with a single throttle window.

But what happens when you have two or more throttle windows open at the same time? When you use the save option, all opened throttle windows will be saved in the same file. When that file is re-opened, all throttle windows identified in that file will get opened.

This is important to understand — especially further along when working with **merging multiple throttles**.

In the previous chapter, a single throttle window was initiated. And a simple "save" would certainly have saved just the single throttle window into a single layout file. When the file is opened again, only the single throttle window would appear.

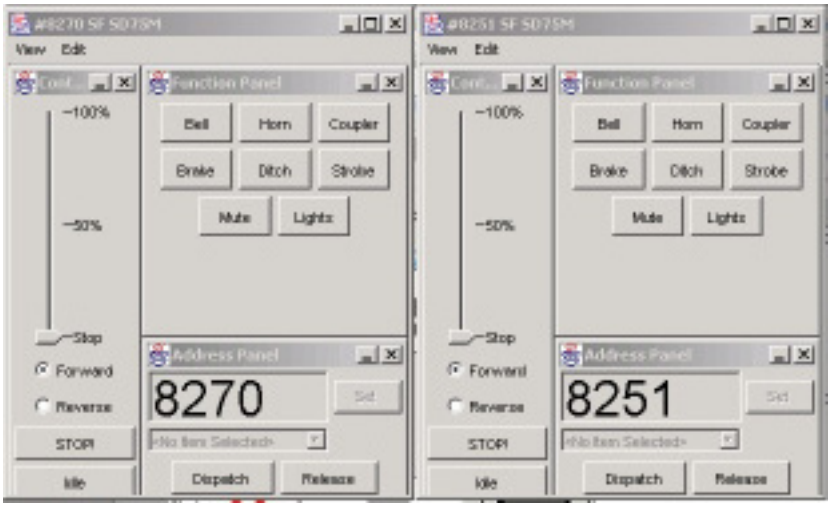

Figure 4-3: Two Active Throttle Windows

But what if we had opened and configured a second throttle window, while the first throttle window was still active on the screen? There would then be two active throttle windows that would be "saved" into the same layout file (see figure 4-3). Not only would the configuration of the throttles be saved, but also the exact screen sizing and locations of the two throttles.

When the layout file is re-opened, both throttle windows would be opened and positioned on the computer screen in the exact place they were when the file was saved.

Open/Load a Throttle Layout

After saving a throttle layout has been accomplished, you'll want to open the file again. This is a very simple procedure. However, opening up a throttle layout file when one or more throttle windows are already active somewhere on the screen, requires an extra step. Before we discuss this extra step, let's first open a simple throttle layout file.

If you were following the guidelines shown above for saving a throttle layout file, you should now have created your first throttle file. If you haven't done so already, close down the throttle window that you created in the previous chapter (make sure you saved it first by following the above instructions).

You shouldn't have any throttle windows open on your screen at this time. Following the directions provided in **Chapter 1** for locating the Throttle Menu, locate the option that says "**Load Throttle Layout**" (see figure 4-4 on the right). Clicking on this menu option will display an "**Open**" dialog box. Locate the throttle layout file that you just previously saved and open it.

Figure 4-4: Load Throttle Layout

The throttle window that you just created should open up in the same place where you closed it. At the same time that the window opens, it is also initializing the decoder address to the command station (just like when the address was first "Set"). The throttle attempts to determine the current direction of the locomotive, as well as identify any functions that are in the "on" state.

Note: Because the JMRI Throttles are still in their "beta" development mode, there are still some quirks that need to be ironed out. An example of this is when opening a throttle layout and the DCC address is already "in use" by another throttle. Some systems (i.e. Digitrax) are reacting differently when this occurs.

Enhancement requests are already on the list for the throttles to be "smart" in determining when another throttle already has the address. But until these throttles are fully implemented, just beware that there may be quirks with your particular DCC system with this feature. It is therefore suggested that prior to opening up a saved throttle layout file, the DCC address is verified as not being used by another throttle somewhere.

Merging Throttle Windows

Throttle layout files can consist of a single throttle window (to control a single locomotive or consist address), or it can contain multiple throttle windows (refer to figure 4-3). In either case, when opening a throttle layout file, the program will check to see if any existing active throttle windows are already open. If none are found, then the file is opened just like a simple layout opening (explained above).

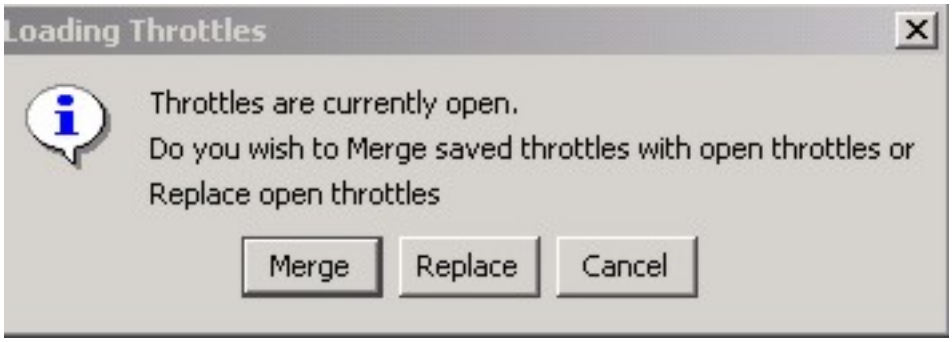

Figure 4-5: Merge Dialog Box

However, when one or more throttle windows are discovered already open on the screen, the program will open up a dialog box as shown in figure 4-5 on the right.

- **Merge** — leaves the currently active open throttle windows in place and opens the throttle (s) contained in the layout file being opened.
- **Replace** — closes down the currently active open throttle window(s) and opens up the throttle window(s) established in the saved layout file.
- **Cancel** — cancels the "open" request and closes down this dialog window.

Note: Do not confuse the action that is occurring here with any attempts to overwrite your saved throttle layout files. The above actions have no effect on the actual saved throttle layout files themselves. The only "merging" and "replacing" that occurs is simply on your screen.

TIP!

When creating throttle layout files, you can save the same decoder address in multiple throttle layout files. A good example of why you may want to do this would be if you create several throttle layout files, each consisting of a single throttle window controlling one single locomotive — like one for each loco in your roster. There may be times when you wish to just run a single locomotive and you just open up the associated layout file. Simple! But what if you find yourself opening up the same locomotive throttles consistently on each session. It's going to become a pain opening up (and "merging") these throttles one at a time. Therefore, you could create another layout file that contains all of the throttle windows that you wish; then just open up the one layout file and you'll have all of the throttle windows defined.

Just remember, when making a change to the configuration of a throttle window, it only gets changed in the layout file that you saved — it is not a global change in every file where that locomotive is used.

Closing a Throttle Window

When done with a throttle window, it might be a good idea if you get into the practice of either "releasing" or "dispatching" the locomotive before completely closing down the throttle window.

If you have made any configuration changes to the throttle window, and you want to save them, you'll need to follow the steps as outlined above.

> **Note:** If you "save" any changes that you have made during a session back to an existing throttle layout file, beware that ALL currently opened throttle windows will also be saved to the same file.

When you are ready, simply close down the throttle window as you normally would on whatever computer system you use. For example, for Microsoft Windows, simply click on the "X" in the upper right corner of the throttle window.