Digitrax DT402D Duplex Radio Throttle Firmware Update

The following instructions are provided for upgrading Digitrax DT402D throttles to the latest Firmware Revision and optionally, when updating the RF24 Duplex Radio Module.

Note: The ***RF24 Duplex Radio Module*** is part of the DT402D Throttle and the UR92.

These instructions assume that a Digitrax PR3 has been properly installed, is connected to a Command Station (DCS100 & 200, DB150, DCS50 or DCS51) and working properly. It is also assumed that the DigiIPL109 Utility and any required *.DMF files have been downloaded from http://www.digitrax.com prior to this Firmware update.

This update is *recommended* for Digitrax DT402D Throttles. It is an *optional* update for other DT402 Series Throttles.

These instructions must be followed step by step to ensure the DT402 Series Throttle(s) are updated correctly.

Multiple Throttles can be upgraded at the same time. A splitter can be used to provide additional Loconet jacks.

When updating any device with the DigiIPL109 Utility, nothing should be plugged in or unplugged from Loconet.

The following steps need to be taken before the Firmware Update can be started:

1. Disconnect **ALL** Loconet devices from the Command Station with the exception of the PR3. No other Loconet devices should be plugged in at this time.

2. Insert a known **GOOD** 9 volt battery into the DT402 Series Throttle(s) which are to be updated.

3. Plug the DT402D Throttle(s) into Loconet.

To begin the Firmware Update, double click on the DigiIPL109.exe icon.

If the following Open File – Security Warning box is displayed, click 'Run'
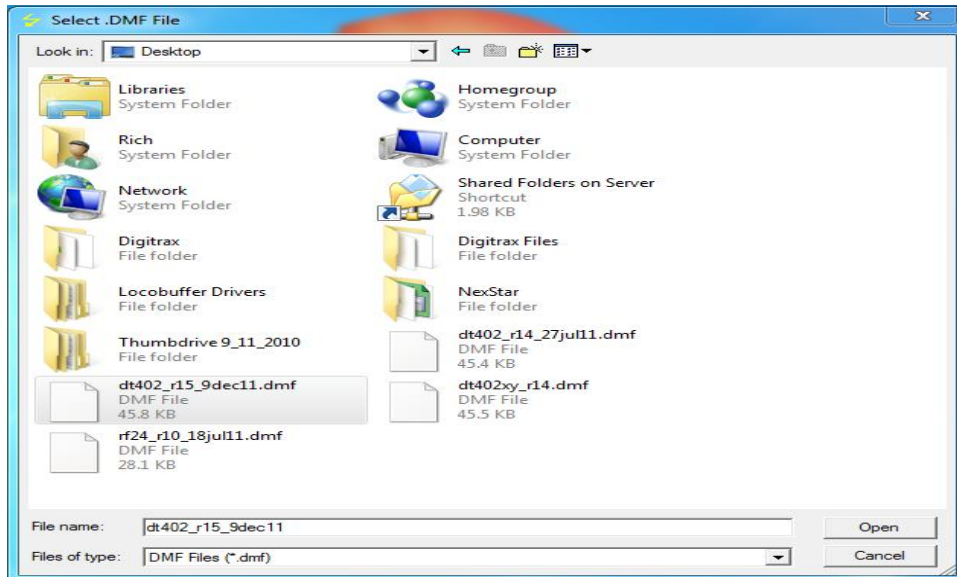

The DigiIPL109 Utility should open and look similar to this:
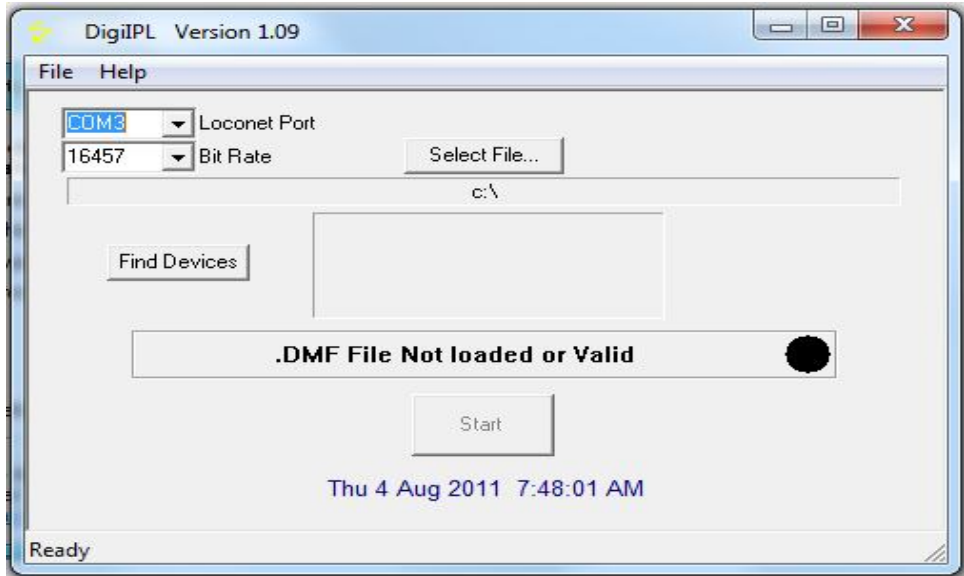
Verify that the proper Loconet Port is selected. This is the Com Port that the computer has assigned to the PR3. The Bit Rate should be set for 16457.

Click on the 'Select File…' box, navigate to the location where you saved the *dt402_r15_9dec11.dmf* file, click on the filename to highlight it then click 'Open'.
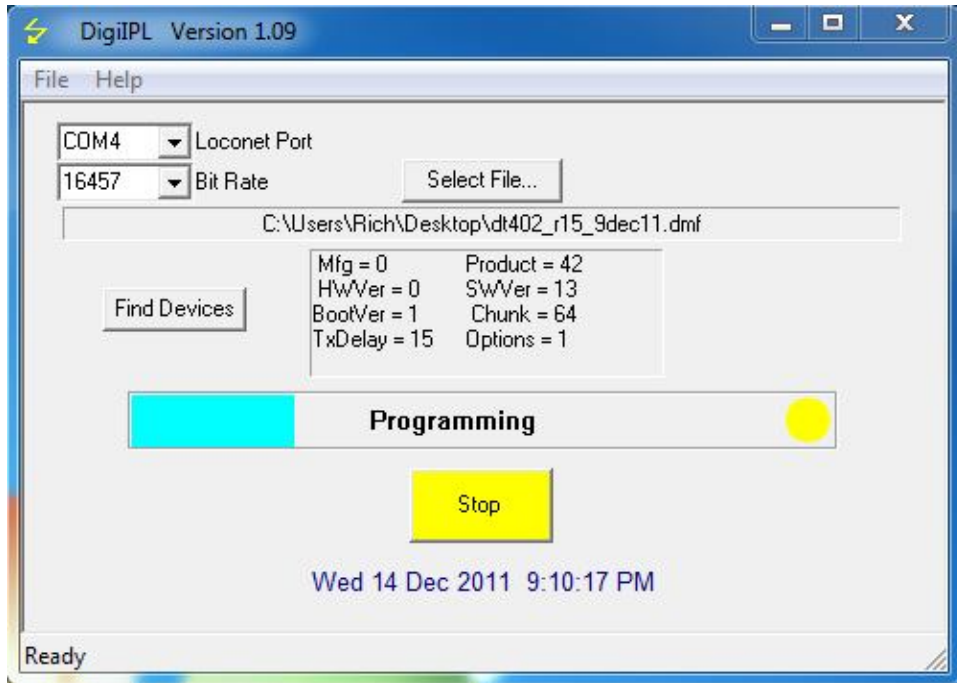

The program will go back to the main screen and look similar to this:
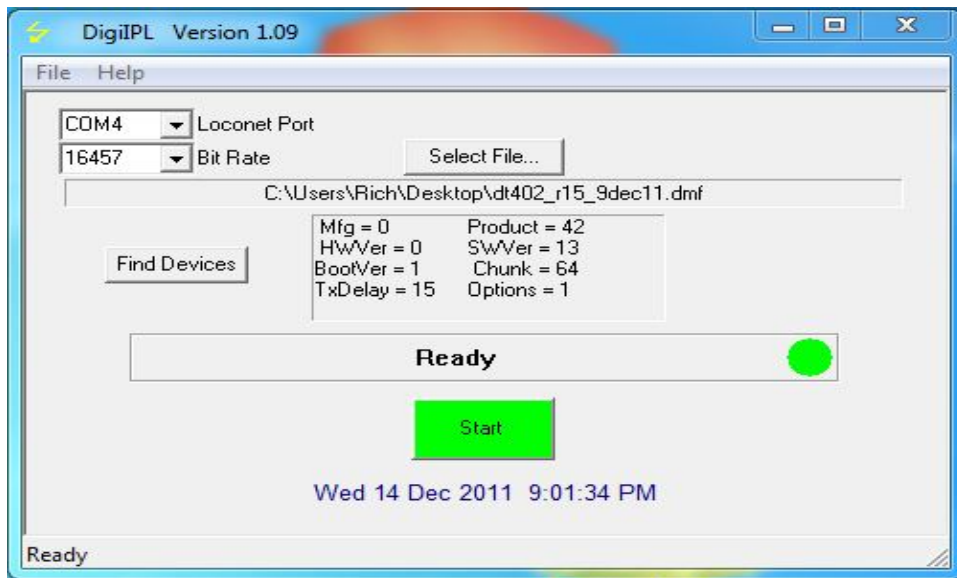
Click on the 'Start' button

A progress bar will be displayed and will look similar to this:

While the Throttle(s) are being updated, the white Flashlight LED will blink and the Throttle Display will display 'IPL Run'

When the update completes, the Throttle(s) will reset and display **DT402D15**

Unplug the Throttle(s) from Loconet.

Remove the battey from the the Throttle(s) and then reinsert the battery.

Plug the Throttle(s) back into Loconet.

The Throttle(s) should read **DT402D15**. If the Throttle(s) display doesn't read **DT402D15** or 8 dim blocks are displayed , the update did not finish correctly and will have to be ran again. Repeat the steps to reprogram the Throttle(s).

NOTE: You may have to update a Throttle more than once for the update to be successful.

NOTE: If updating a Throttle other than a Duplex Equipped Throttle, the display will be different. The last two digits displayed should read **15**.

After successful completion of the update, Click the 'Find Devices' box. A list of devices will appear in the Discover box.

Under the Select column click the row that displays DT402. The display will look similar to this:

Select	Host	SN#	SWVer	Slave	
☐	PR3	03	0.4		
☐	UR92	06F6	0.5	RF24	
☑	DT402	4228	1.5	RF24	
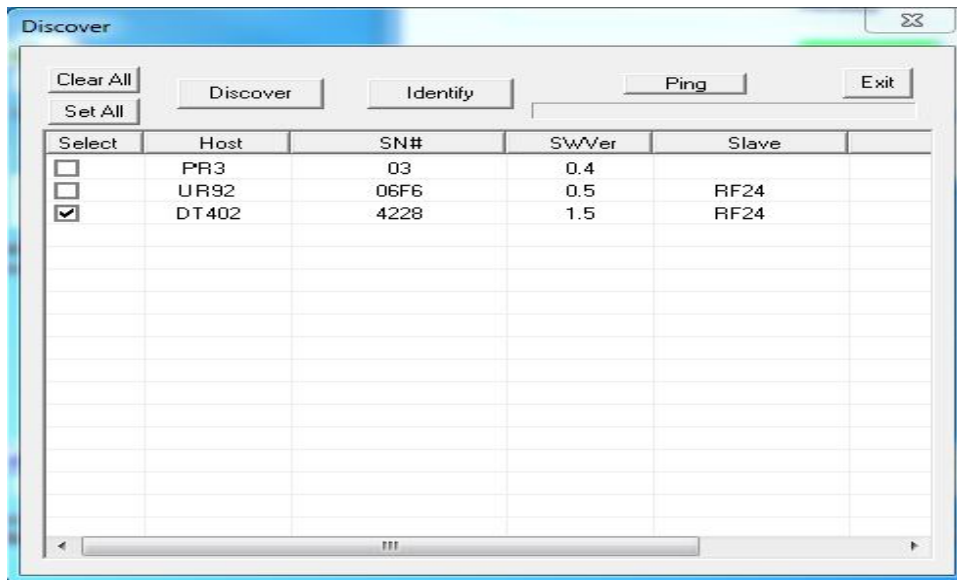
Next use the scroll bar at the bottom of the Discover box to scroll all the way to the right.

The display should look similar to this:

| SN#	SWVer	Slave	SN#	SWVer.
03	0.4		00	0.0
06F6	0.5	RF24	16FE	1.0
4228	1.5	RF24	2BE0	1.0
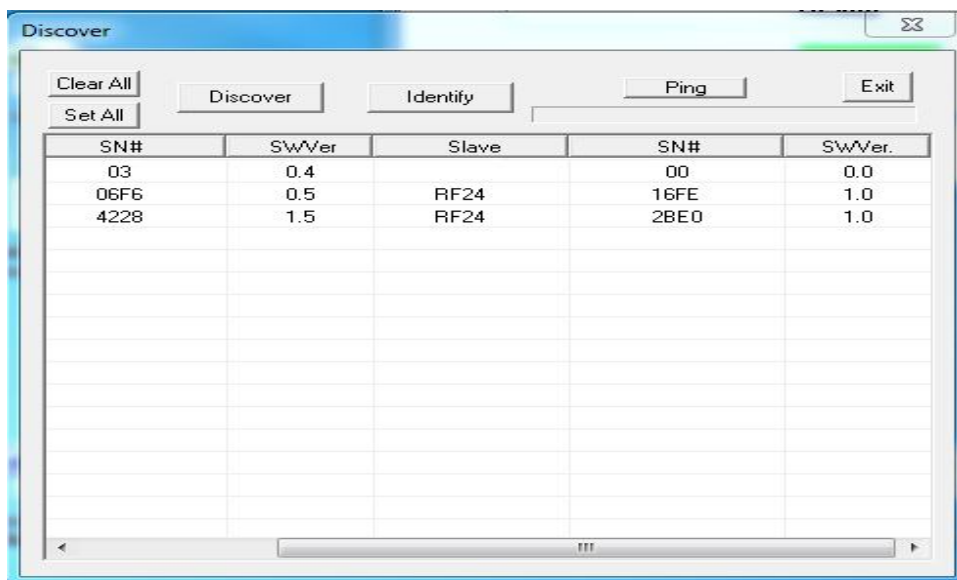
If the FAR Right **SWVer.** Column reads **1.0**, no further updates are required.

Reconnect all the Loconet devices that were previously disconnected. Close out any DigiIPL109 display boxes that are still opened. Return the layout to normal operation.

If the FAR Right **SWVer.** Column reads something other than **1.0**, the RF24 Duplex Radio Module needs to be updated.

Use the following step to update the RF24 Duplex Radio Module:

Click on the 'Select File…' box, navigate to the location where you saved the rf24_r10_18jul11.dmf file, click on the filename to highlight it then click 'Open'.
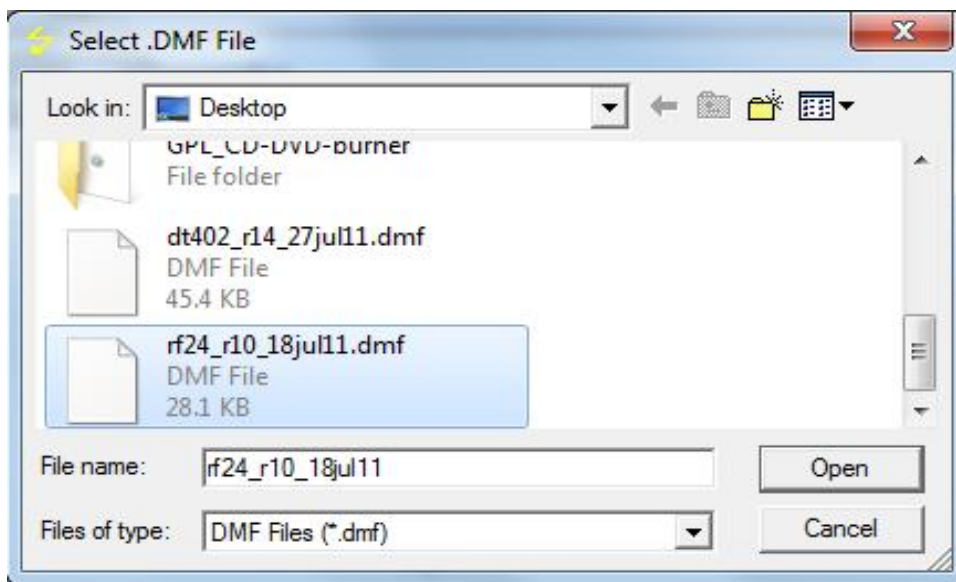
The program will go back to the main screen and look similar to this:
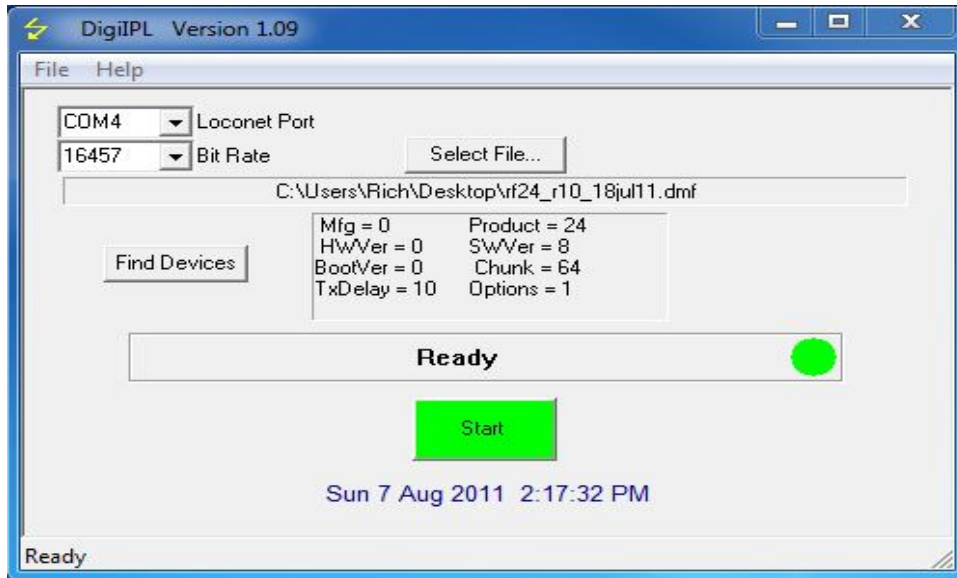
Click on the 'Start' button

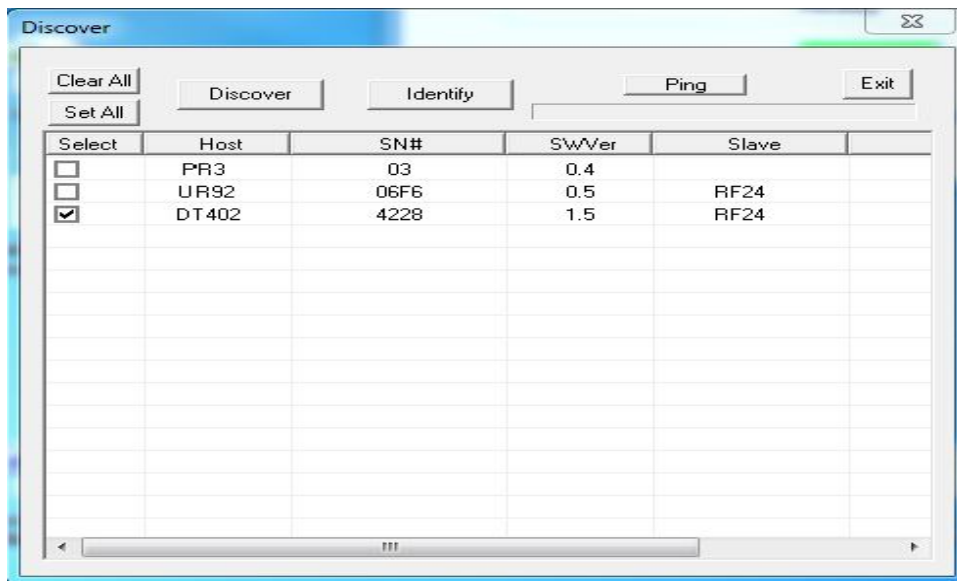A progress bar will be displayed and will look similar to this:

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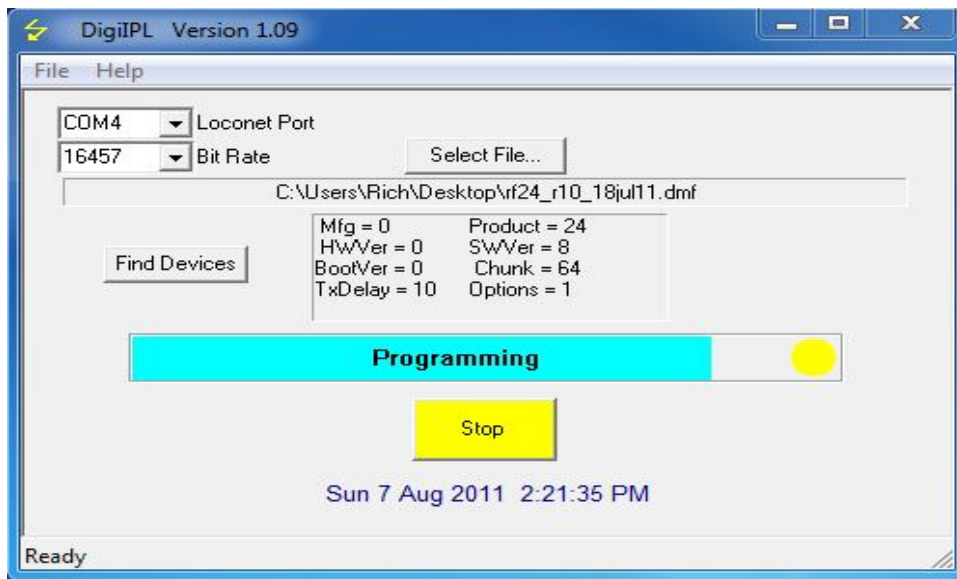
While the RF24(s) are being updated, the white Flashlight LED will blink and the Throttle Display will display 'RF24 IPL'

When the RF24(s) are finished updating, 'RF24 IPL' will still be displayed on the Throttle(s) screen. This is **NORMAL** and an expected result when the RF24 is Updated.

Unplug the Throttle(s) from Loconet then plug it back in.

Click the 'Find Devices' box. A list of devices will appear in the Discover box.

Under the Select Column click the row that displays DT402. The display will look similar to this:

Discover					
Clear All	Discover	Identify		Ping	Exit
Set All					
Select	Host	SN#	SWVer	Slave	
☐	PR3	03	0.4		
☐	UR92	06F6	0.5	RF24	
☑	DT402	4228	1.5	RF24	

Again, use the scroll bar at the bottom of the Discover box to scroll all the way to the right.

The display should look like this:

If the FAR Right **SWVer.** Column reads **1.0**, the RF24 Duplex Radio Module has updated correctly.

Reconnect all the Loconet devices that were previously disconnected. Close out any DigiIPL109 display boxes that are still opened. Return the layout to normal operation.

Please email Tech Support at techsupport@digitrax.com with any questions.

Tech Support is not configured to diagnose issues related to computer, operating system, hardware, configuration or other possible problem areas that may cause problems with running the DigiIPL109 utility.