

Microcom DigiRIT Upgrade Procedures

Revision 1

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1. Introduction

The purpose of this document is to guide users through the process of updating the firmware in a Digital LRIT / HRIT Receiver (DigiRIT).

The application used to perform the upgrade is called the DigiRIT Programming Utility. It is a lightweight windows application that can be downloaded and run without needing to be installed. The Utility can be downloaded from Microcom's website under the [DigiRIT webpage](#).

The other item needed to complete the update is a firmware image file. The firmware file is less than 200Kb in size and is a simple hex file that will be distributed as an email attachment. The DigiRIT contains two processors, the Master and the Slave this update will only require updating the Master firmware.



2. DigiRIT Upgrade Example

The following procedure will describe the steps taken to upgrade a DigiRIT from firmware version 1.13 to 1.14.

2.1. Disconnect DigiRIT

2.1.1. Turn OFF

Turn off the DigiRIT using the power switch located on the rear of the device.



2.1.2. RF Input

*****IMPORTANT*****

Disconnect the “ANTENNA IF” IN connection from the rear of the device. This will be connected to either the 140 MHz or 70 MHz input. Having a connection on either one of these ports will disrupt the upgrade process.



*****IMPORTANT*****

2.1.3. Client

*****IMPORTANT*****

Disconnect or otherwise disable any services or applications connecting to the DigiRIT receiver. If the IP address of the DigiRIT is not already known use the application to find and log the DigiRITs IP for the DCS TCP/IP port. Having a client connection on either port will disrupt the upgrade process.



*****IMPORTANT*****

2.1.4. Document Firmware and S/N

Using the power switch located on the rear of the device turn on the DigiRIT receiver. While the DigiRIT is starting up document the current firmware version and serial number shown on the front panel. In this example the current firmware is 1.13 and the serial number is 1050.



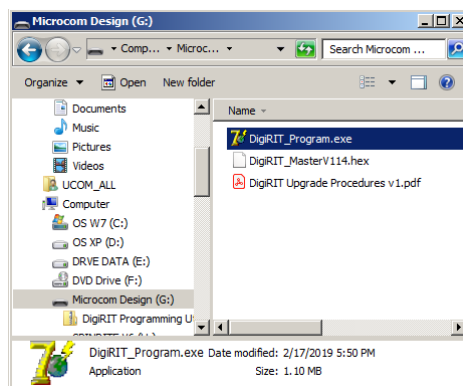
2.1.5. Verify

Verify that the RF connection has been successfully disconnected by ensuring the "SIGNAL ACQUIRED" indicator LED stays red. Verify that all client connections have been successfully disconnected by ensuring the "CLIENT CONNECTED" indicator LED stays red.

2.2. PC Setup and Programming

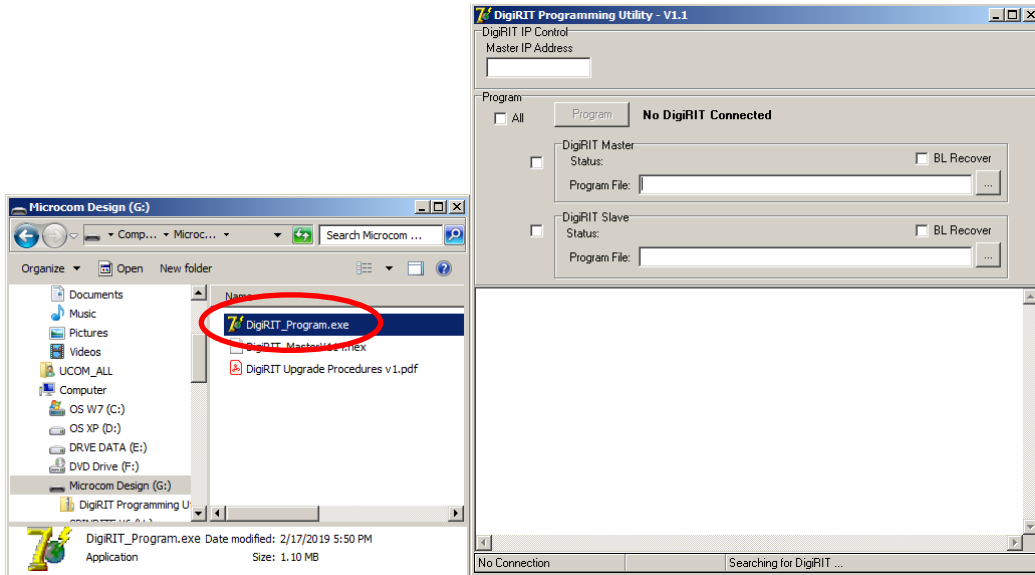
2.2.1. Download

Download the programming utility from Microcom's website located under the [DigiRIT webpage](#). The firmware hex file will be distributed as an email attachment once payment has been received. The Utility is recommended to be run on the PC that was running the client application connected to the DigiRIT so that this document does not need to guide the user through configuring network settings. The Utility can be run on a USB thumb drive if this is more convenient. It is assumed that the PC running the DigiRIT Programming Utility is on the same network and is able to connect with the DigiRIT through the "DCS" TCP/IP port.



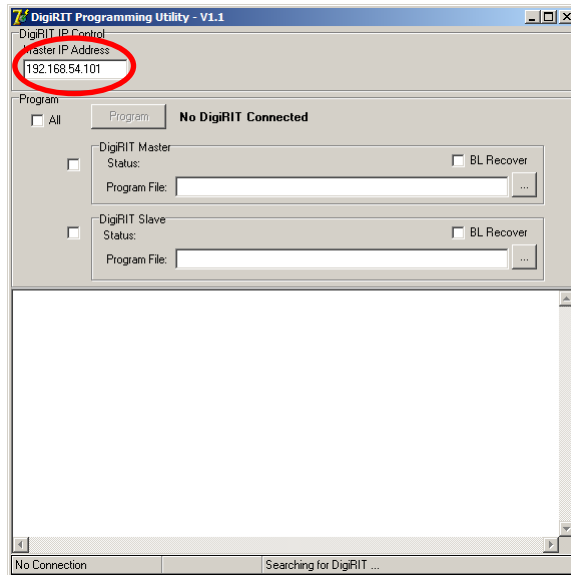
2.2.2. Run

Run the DigiRIT Programming Utility by executing the "DigiRIT_Program.exe" file.



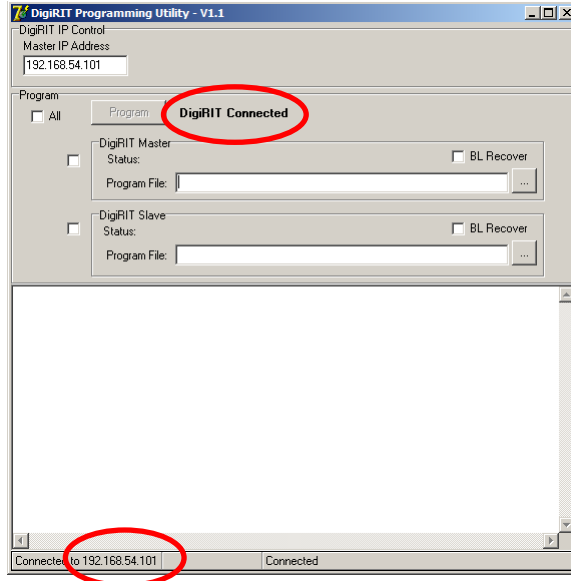
2.2.3. DigiRIT IP Address

Enter the IP address of the DigiRITs "DCS" TCP/IP port into the "Master IP Address" entry box. This was the IP found in section 2.1.3 of this document. In this example the IP was found to be 192.168.54.101.



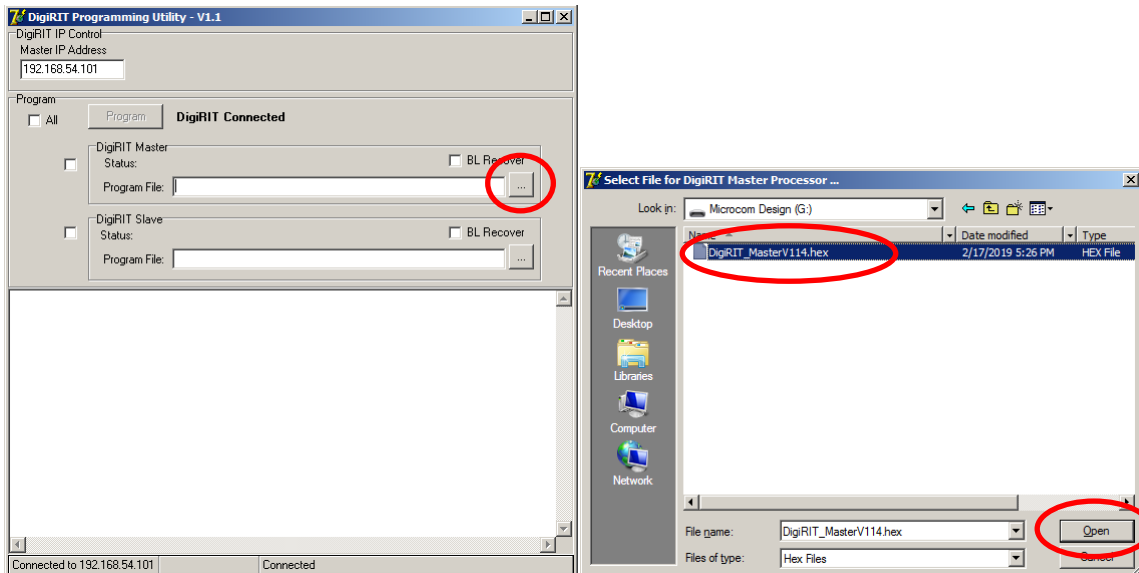
2.2.4. Set IP Address

Use the "Tab" key on the keyboard to enter the IP address. The IP address will be displayed in the status box in the lower left corner of the Utility once entered. Once the Utility has successfully connected to the DigiRIT the status message will change from "No DigiRIT Connected" to "DigiRIT Connected".



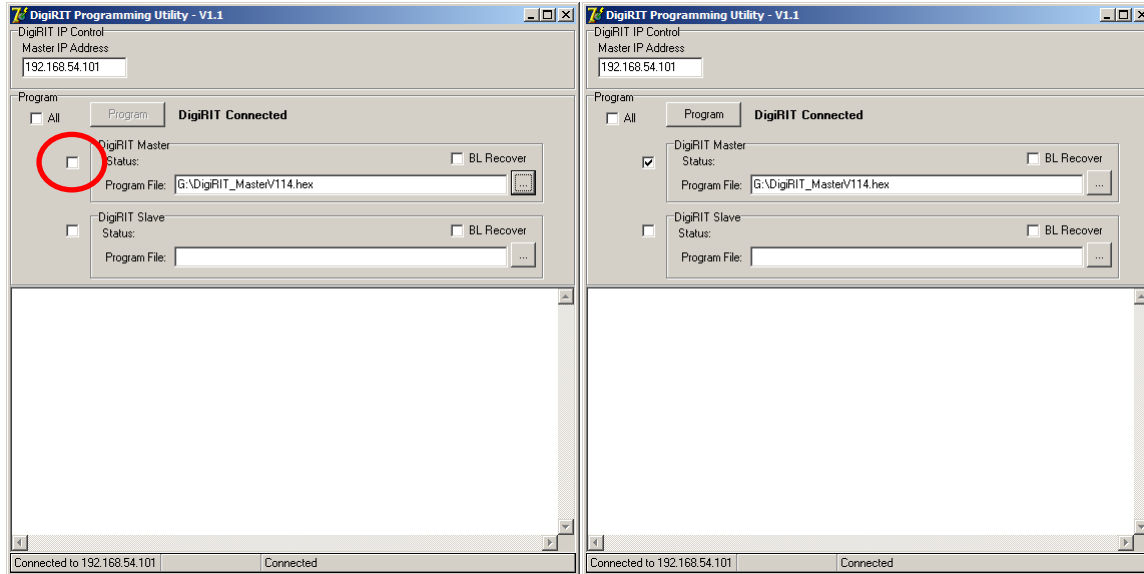
2.2.5. Choose File

Inside of the "DigiRIT Master" group box click the file selection button. This will pop up a "Select File" window. Select the hex file "DigiRIT_MasterV114.hex" and click the "Open" button.



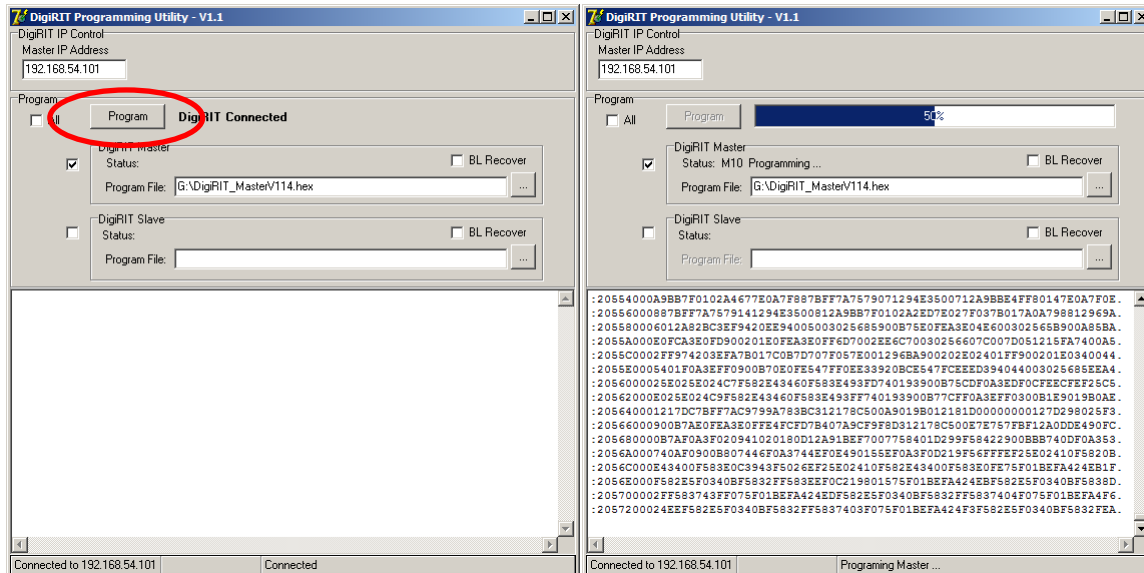
2.2.6. Select Master

Now that the firmware image file has been selected check the check box to the left of the "DigiRIT Master" group box.



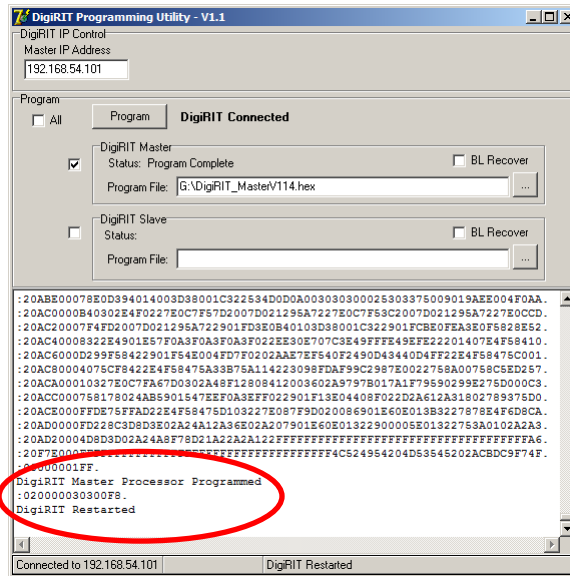
2.2.7. Program Master

Once the checkbox is checked the "Program" button will become active, click the "Program" button to begin the programming process.



2.2.8. Close

After the programming has completed programming the DigiRIT Master processor close the "DigiRIT Programming Utility".



2.3. Cleanup and Log

Now that the Master processors firmware has been successfully updated it would be a good time to verify and log the updated firmware version.

2.3.1. Turn Off

Turn off the DigiRIT using the power switch located on the rear of the device.

2.3.2. Reconnect RF

Reconnect the RF input connection that was disconnected in step 2.1.2 of this document.

2.3.3. Restart Client

Restart any clients that were disconnected in step 2.1.3 of this document.

2.3.4. Restart DigiRIT

Turn on the DigiRIT receiver using the power switch located on the rear of the device. While the DigiRIT is starting up document the updated firmware version shown on the front panel. In this example the firmware was updated to 1.14.



2.3.5. Verify connections

Ensure that both "SIGNAL ACQUIRED" and "CLIENT CONNECTED" LED indicators turn green.



2.4. Notes

If the IP address of the DCS Ethernet connection is unknown Microcom recommends downloading and installing [Moxa's search utility](#) this will find and list the IP address of any Moxa modules on the network.