

UDR2 Digirule 2U Firmware Updater User Manual

8 January 2021

Introduction

UDR2 is a utility used to install firmware updates on the Digirule 2U. Versions are available for Linux, Mac OS and Windows. This manual should be considered a supplement to the *Digirule 2U User Manual*.

Getting Started

Before running the utility, you need to download from the Digirule 2U website the hex file for the firmware you want to install.

Example firmware file: `dr2u.firmware.22sep2020.hex`

You also need to know the name of the USB device on your computer to which the Digirule 2U is connected.

Linux

```
ls /dev/tty*
```

Example device name: `/dev/ttyUSB0`

Mac

```
ls /dev/tty.*
```

Example device name: `/dev/tty.usbserial-DM038QQY`

Windows

`mode` , or use Device Manager

Example device name: `COM3`

And finally, the Digirule 2U must be in the proper mode to receive the firmware. Please refer to the *Digirule 2U User Manual* section *Updating the Firmware* for details on the exact procedure.

Running the Utility

The general syntax to invoke the utility is:

```
udr2 [options] <file device
```

The utility supports the following command-line options:

Option	Function
<code>--program</code>	program and verify (default)
<code>--verify</code>	verify only (do not update)

Invoking the utility is slightly different depending on which operating system you use. All of these examples assume that the utility resides in the current working directory.

Linux

```
pi@rpi0:~ $ ./udr2 < dr2u.firmware.22sep2020.hex /dev/ttyUSB0
Digirule 2U Firmware Updater | 18 Dec 2020 | KD0GLS
Loading hex file... OK
Opening port... OK
Erasing flash... OK
Writing flash..... OK
Verifying flash..... OK
Restarting Digirule... OK
Closing port... OK
```

Mac

```
User@imac:~ $ ./udr2 < dr2u.firmware.22sep2020.hex /dev/tty.usbserial-DM038QQY
Digirule 2U Firmware Updater | 18 Dec 2020 | KD0GLS
Loading hex file... OK
Opening port... OK
Erasing flash... OK
Writing flash..... OK
Verifying flash..... OK
Restarting Digirule... OK
Closing port... OK
```

Windows

```
C:\> udr2 < dr2u.firmware.22sep2020.hex COM3
Digirule 2U Firmware Updater | 18 Dec 2020 | KD0GLS
Loading hex file... OK
Opening port... OK
Erasing flash... OK
Writing flash..... OK
Verifying flash..... OK
Restarting Digirule... OK
Closing port... OK
```

Tip: If the port device name is `COM10` or greater, it must be specified as `\\.\COMnn`

