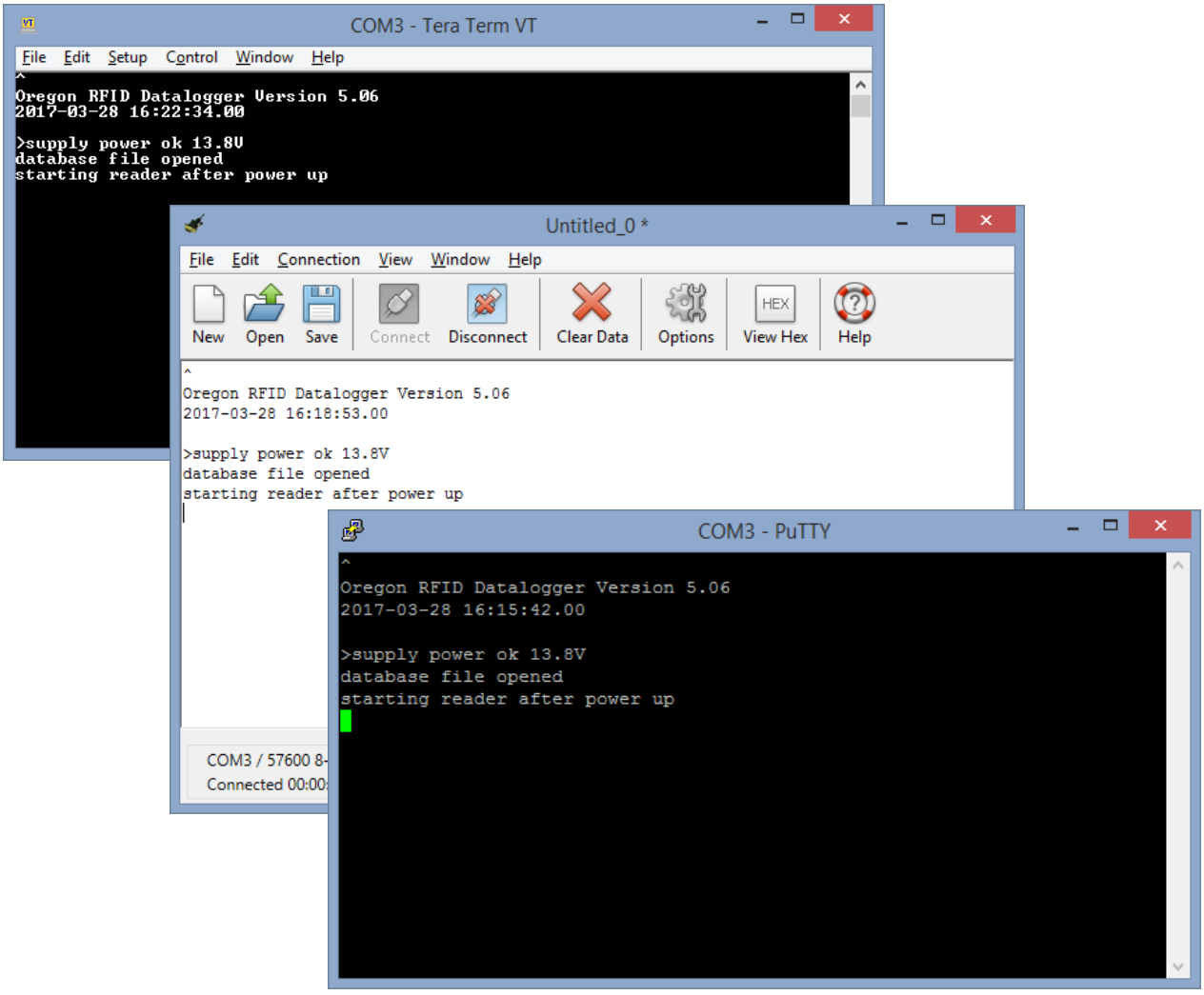
Oregon RFID



Terminal Emulators

September 2020

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INTRODUCTION

Terminal emulators are used to communicate between a computer (or Android device) and the Oregon RFID reader, via serial connection. This connection may be established using a serial cable and USB-to-serial adapter, a USB-B cable, or a Bluetooth serial adapter. See the Command Line Interface manual for more information on connection types and reader operation.

Different operating systems support different terminal emulators. Some of the most common emulators are below:

Windows: CoolTerm, PuTTY, Tera Term

MacOS: Terminal, CoolTerm

Linux: Terminal, CoolTerm, PuTTY

Android: BlueTerm

GENERAL PORT SETTINGS

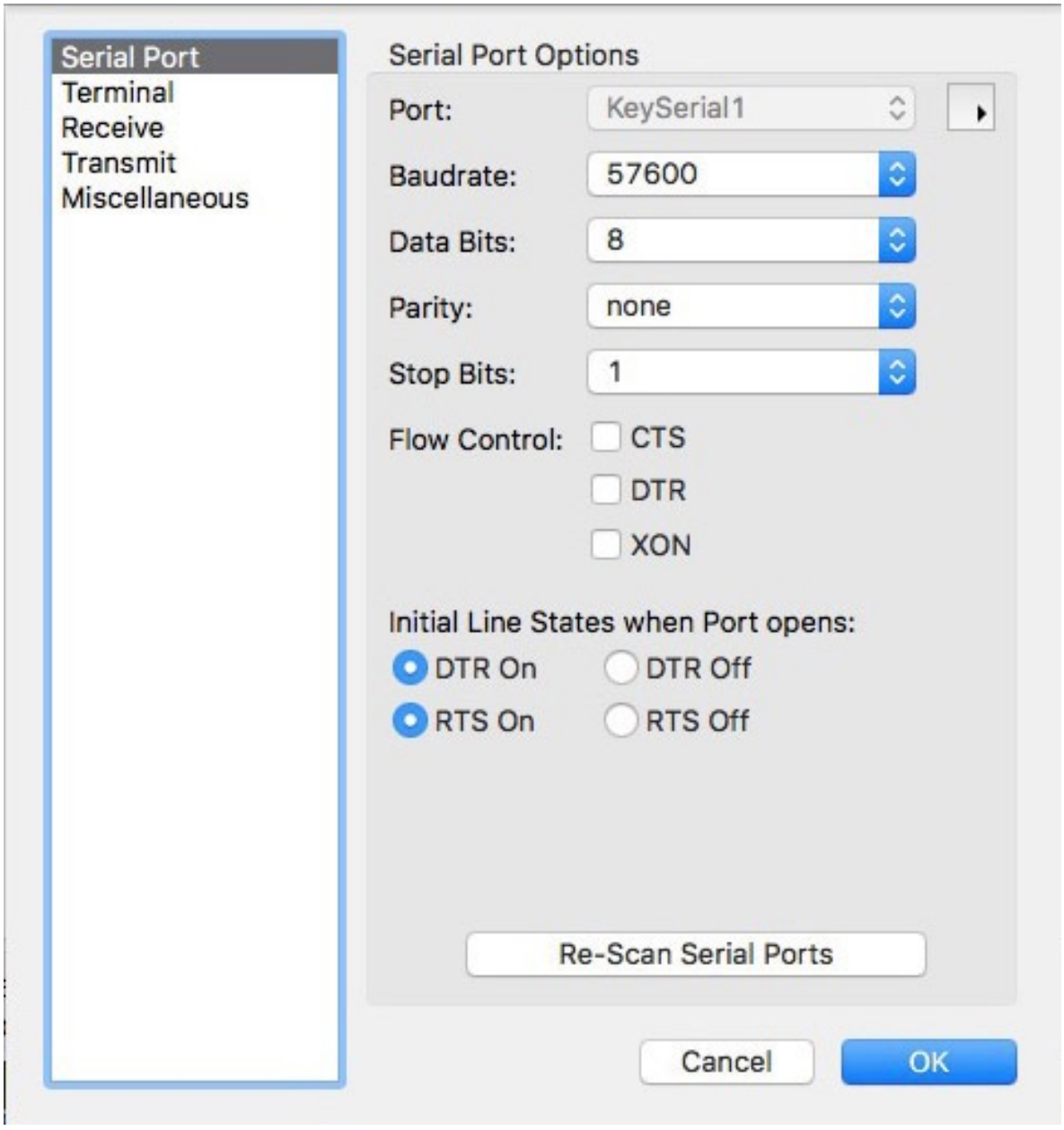
While each emulator is slightly different, they all require the following COM port settings:

Baud rates:
    115200 for ORSR, ORMR Readers
    57600 for old single and multiple antenna readers
Data Bits: 8
Parity: None
Stop Bits: 1
Flow Control: None

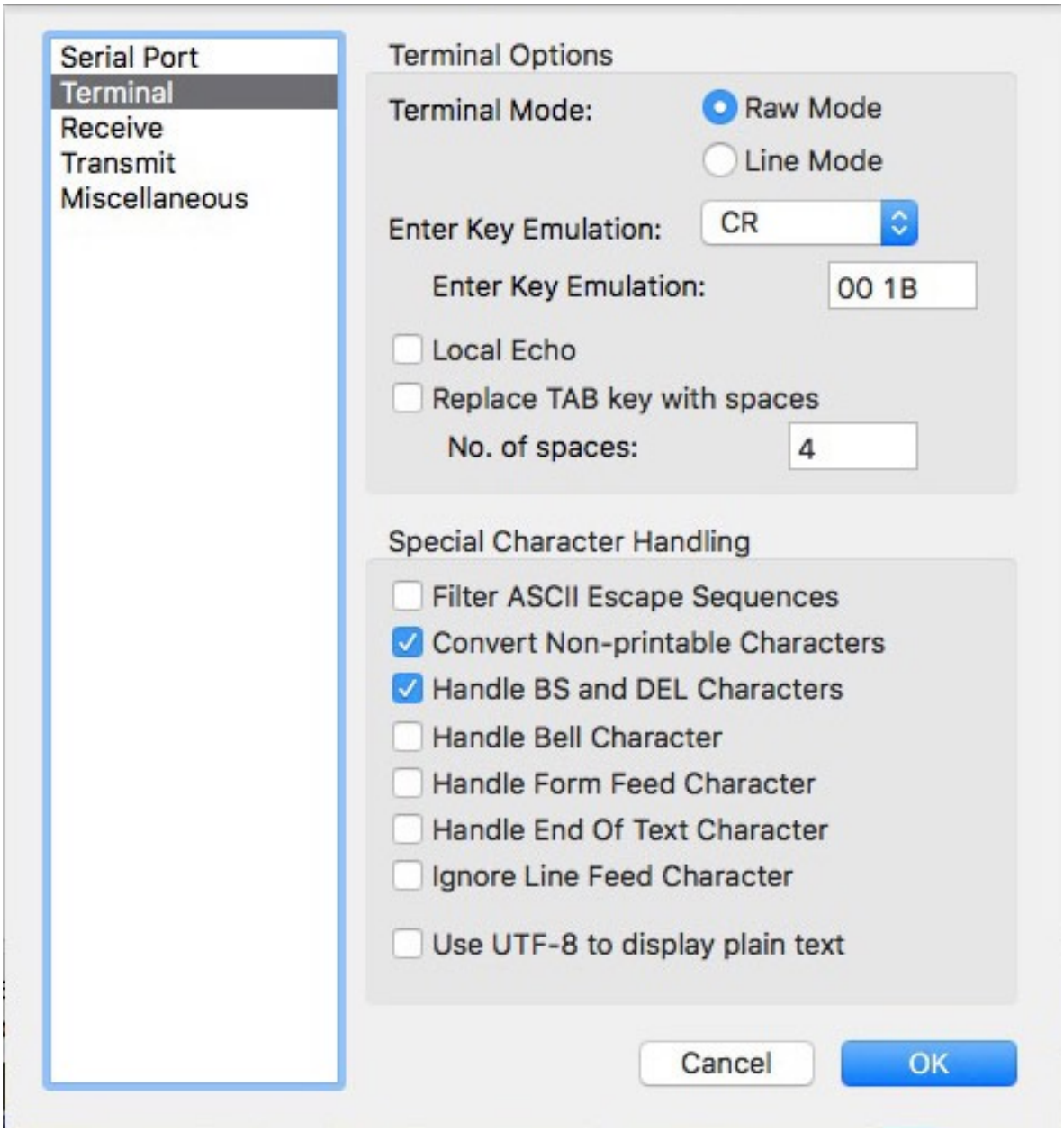
COOLTERM

CoolTerm is compatible with Windows, MacOS, and Linux (though the Linux version is not officially supported). All downloads can be found here: http://freeware.the-meiers.org/

Once CoolTerm is installed, open the program and navigate to the Options menu. Configure the Serial Port Options as shown.

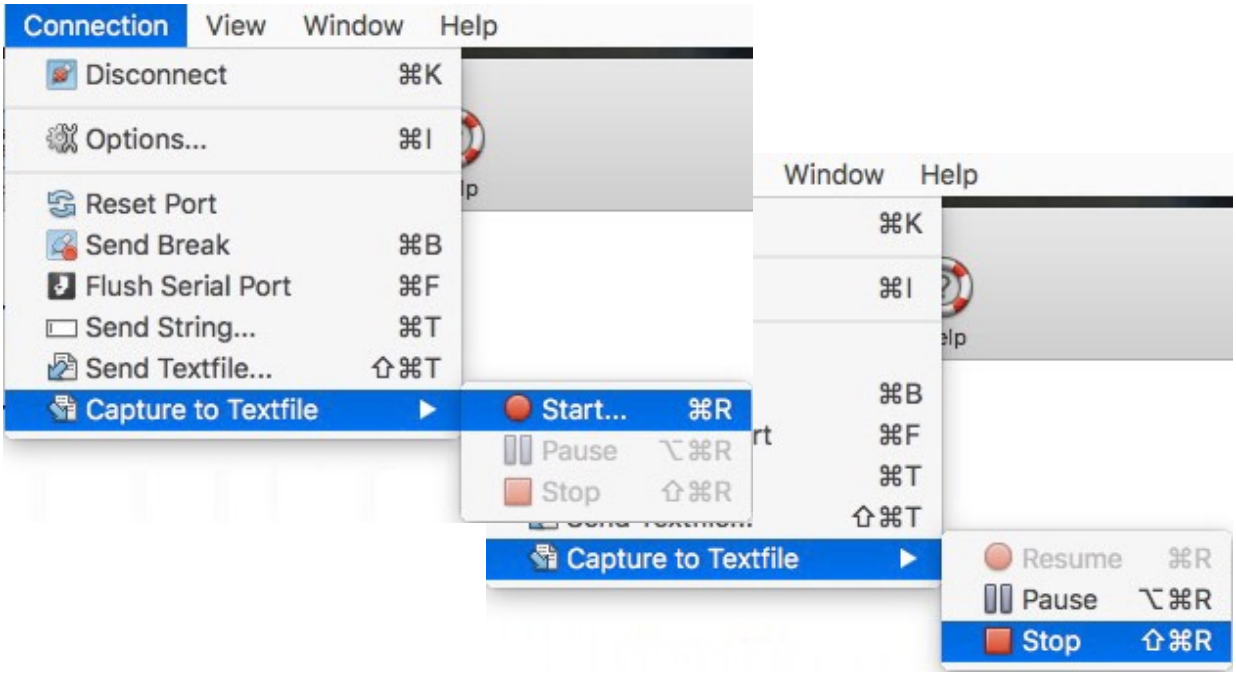


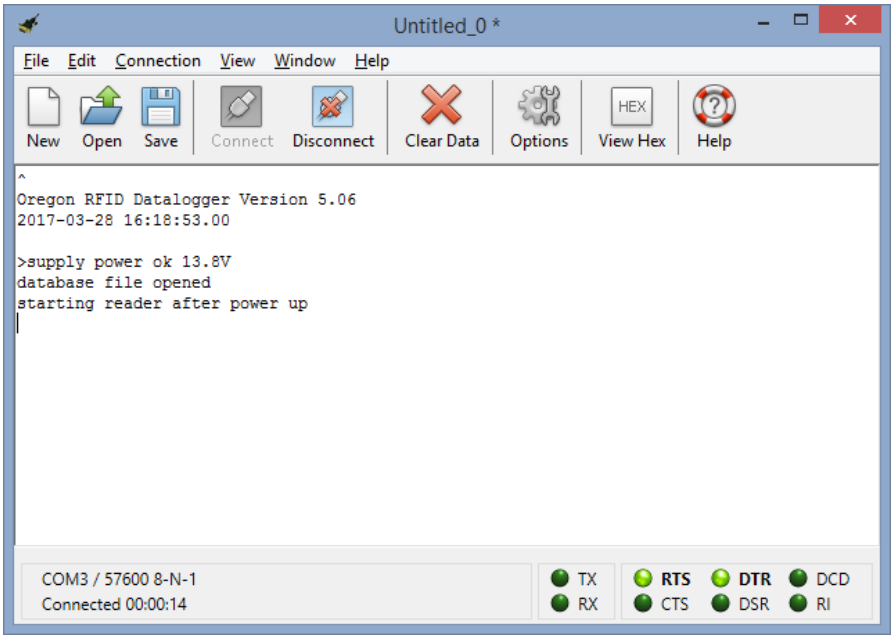
Next, configure the Terminal Options.



SAVING DATA

To record and save data from a session, click Connection, Capture to Textfile, and Start. You will be prompted to name your session and choose a location for the file. To stop recording, select Stop from the same dropdown.



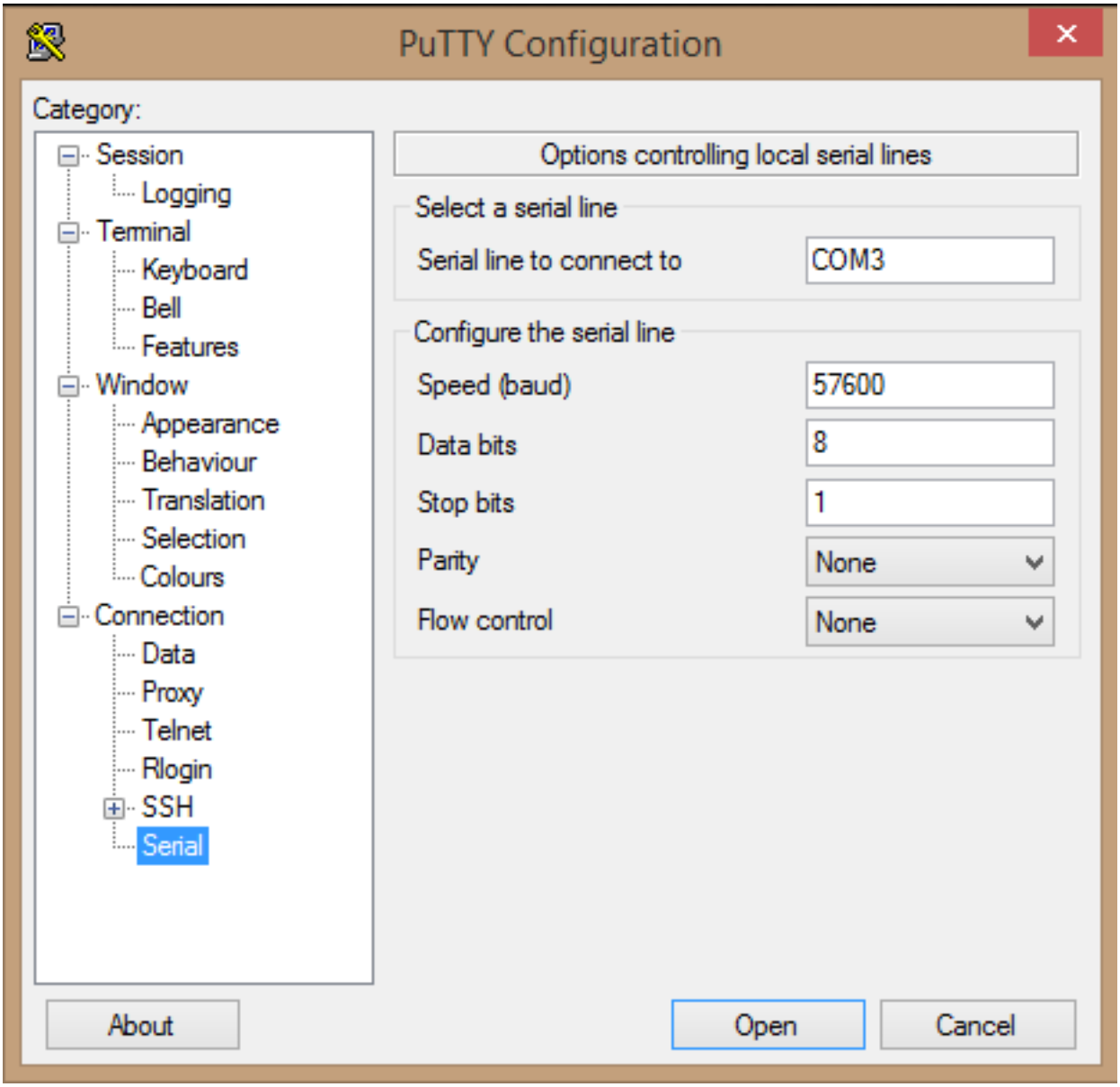


When you are ready to connect to the reader, click Connect and turn the reader on.

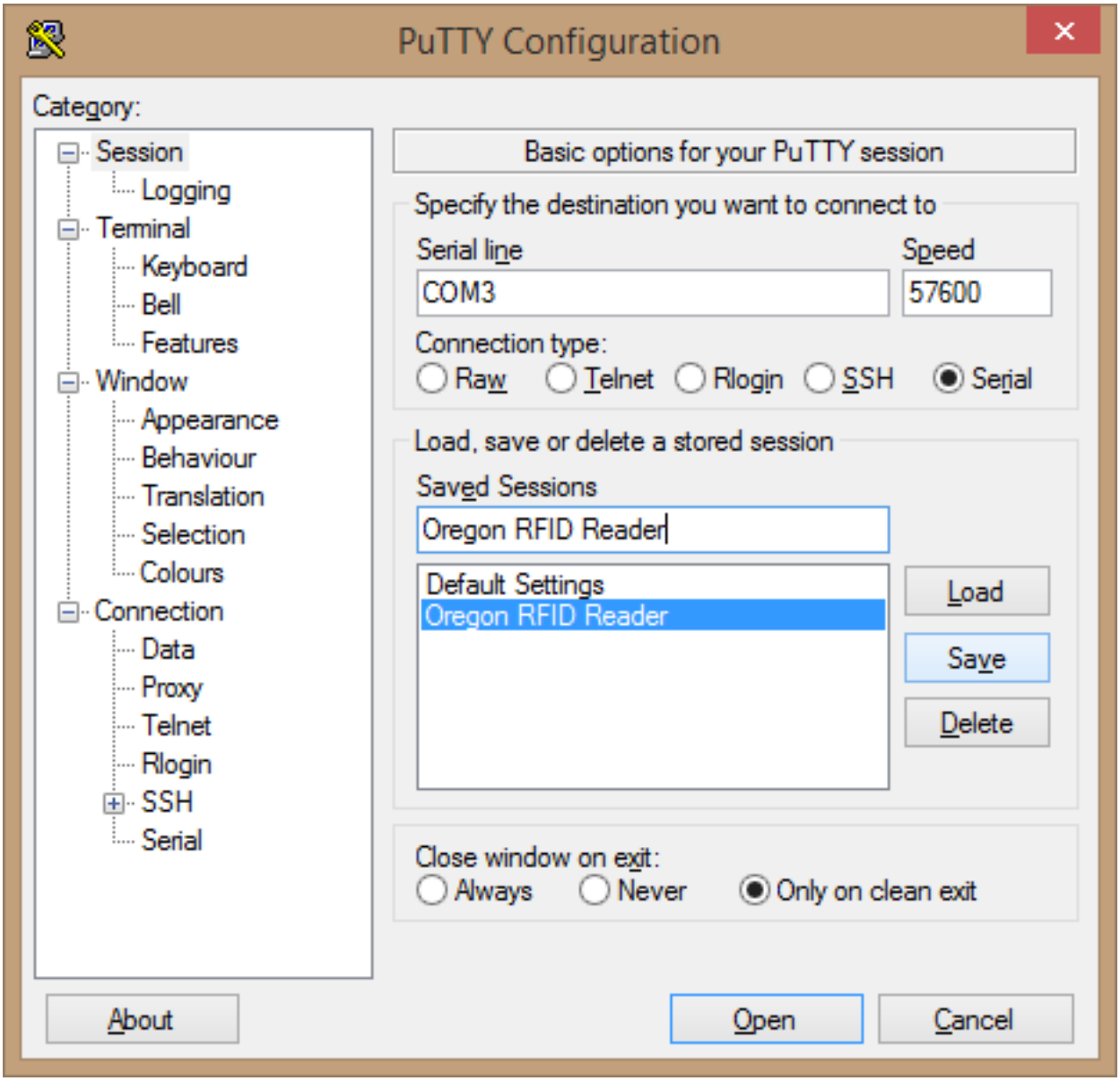
PUTTY

PuTTY is compatible with Windows and Linux. It is available for download here: http://www.putty.org/

Once PuTTY is installed, open the program and navigate to the Serial tab on the left side of the PuTTY Configuration window. Configure as shown.

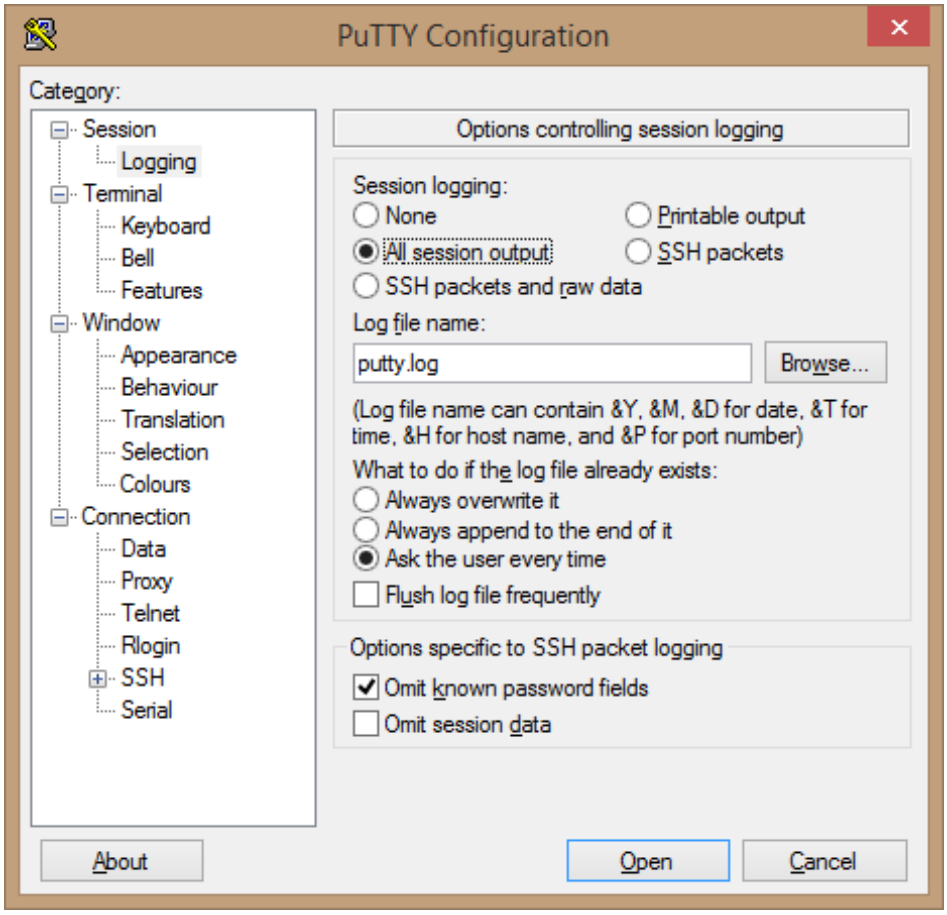


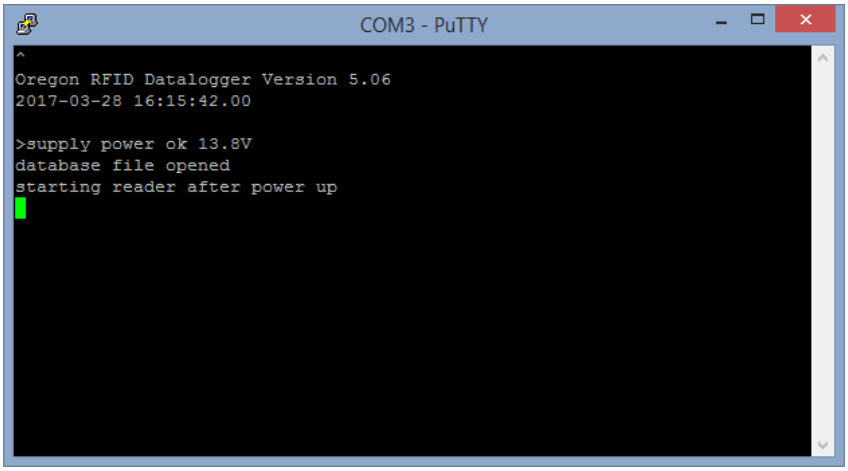
Next, return to the Session tab and name and save the session settings as shown. Once a session's settings have been saved, they may be easily loaded from the same menu.



SAVING DATA

To record and save data from a session, click Logging, then make the below selections. You have the option to name your log file. Click Browse to choose a location in which to save it.



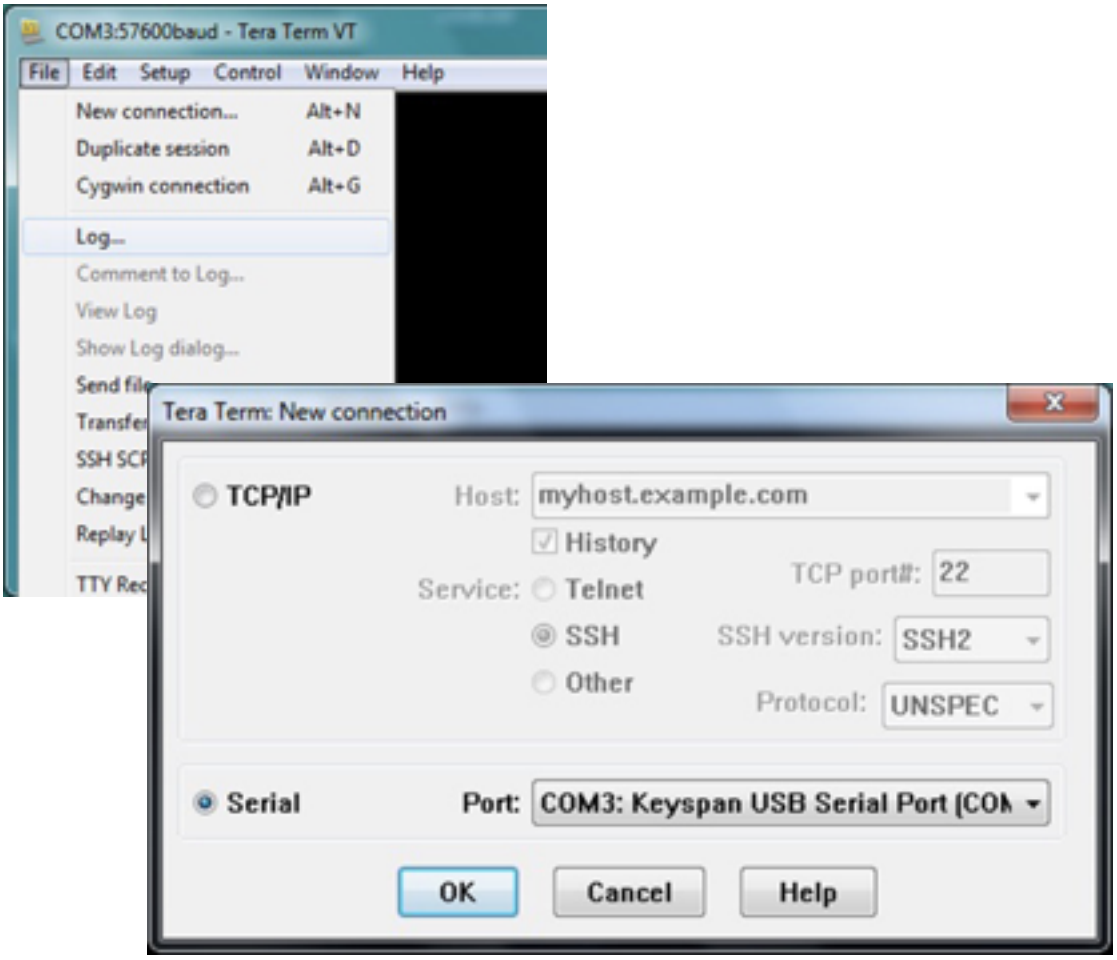


When you are ready to connect to the reader, click Open and turn the reader on.

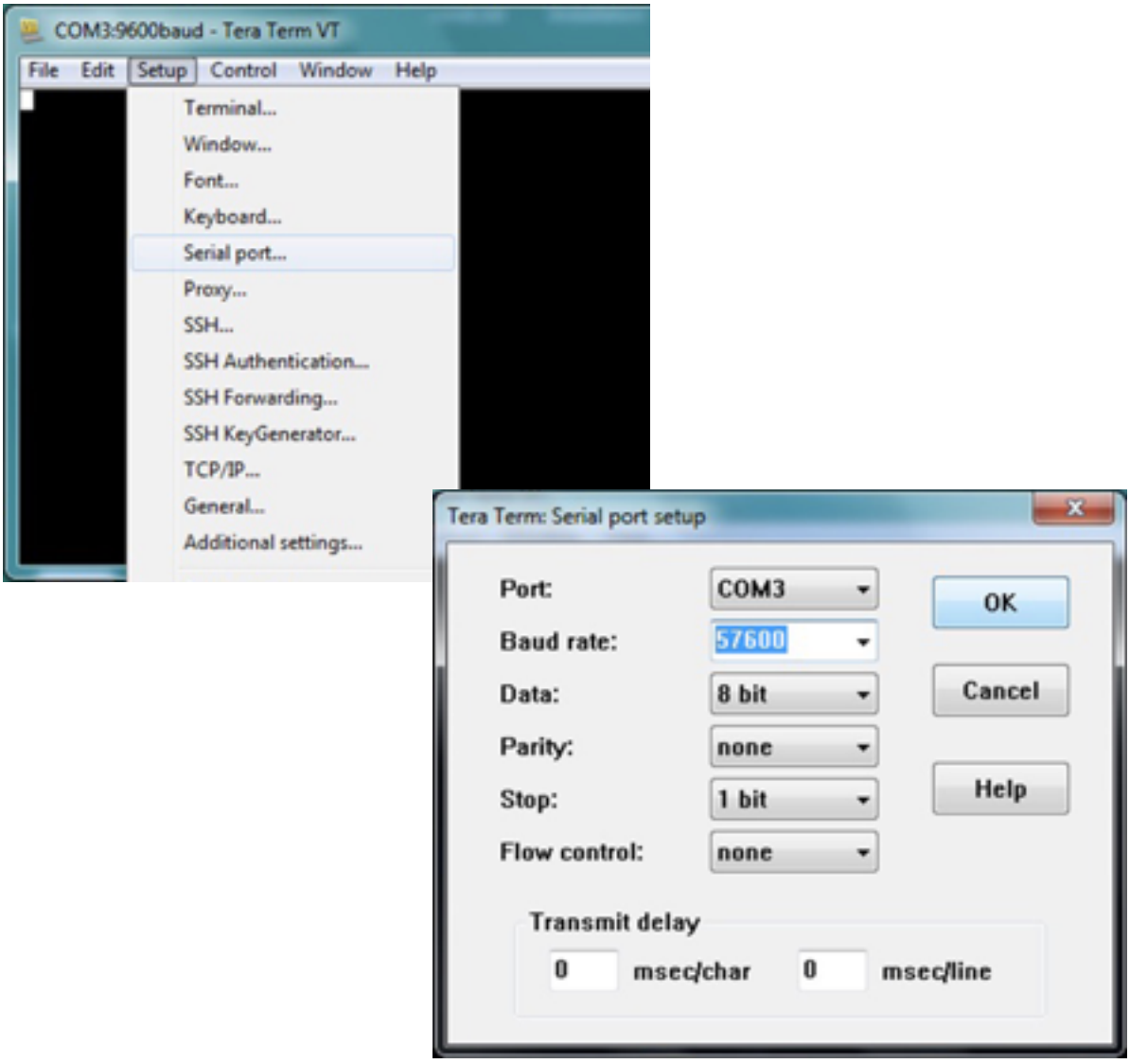
TERA TERM

Tera Term is compatible with Windows. It is available for download here: https://ttssh2.osdn.jp/index.html.en

Once Tera Term is installed, select File, then New connection. Select Serial and choose the correct COM port.

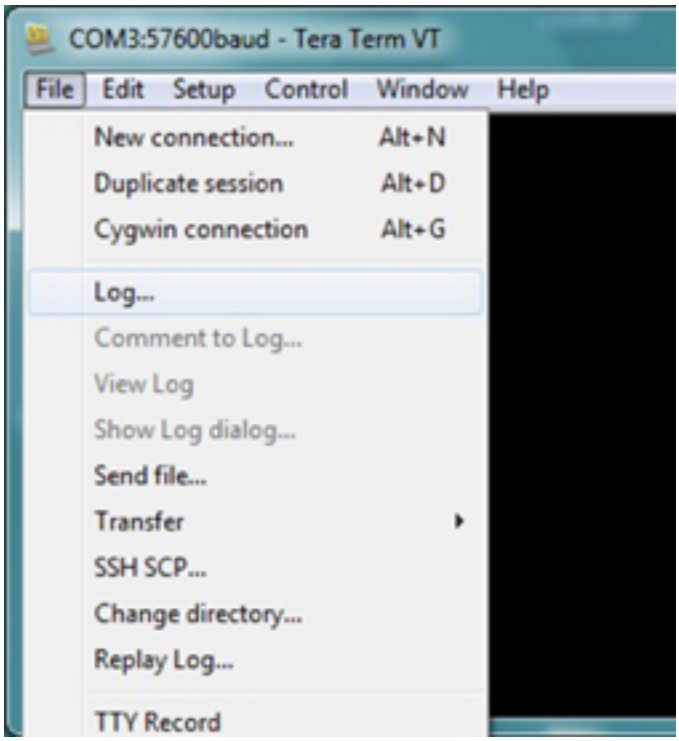


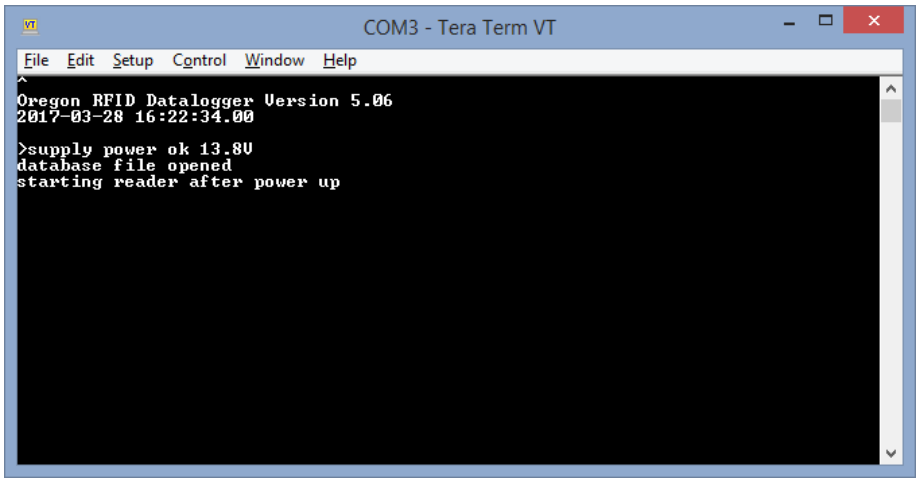
Next, select Serial port from the Setup dropdown and configure the settings as shown. When you are ready to connect to the reader, simply turn it on.



SAVING DATA

To record and save data from a session, select Log from the File dropdown. You will be prompted to name your file and choose a location in which to save it.





When you are ready to connect to the reader, turn it on.

OSX, LINUX OR UNIX TERMINAL

Macintosh and Linux computers use the screen command to connect to the serial port. The basic syntax is:

screen /dev/tty.xxx 57600 (2010 internal datalogger)
screen /dev/tty.xxx 115200 (ORSR Single Antenna Reader)

The second argument of the command is the baud.

The port name /dev/tty.xxx will depend on the host's configuration. A list of device names is displayed with this command:

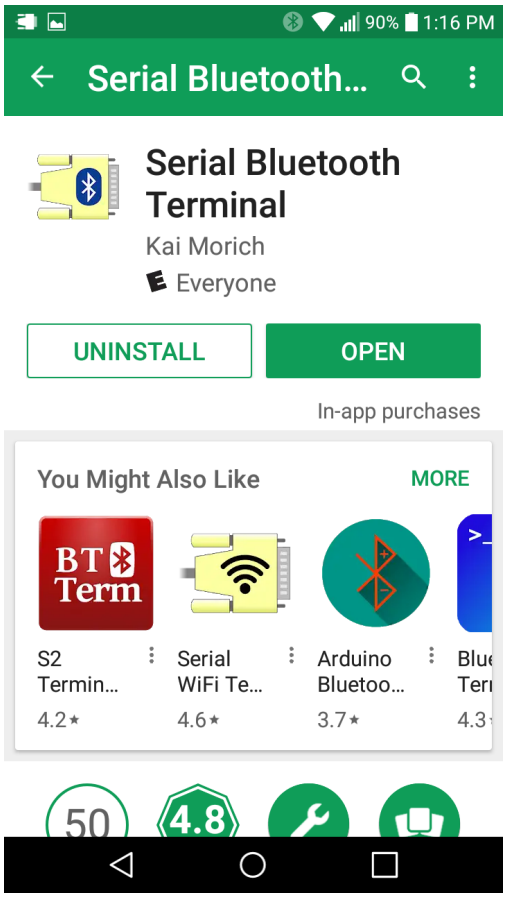
ls /dev/tty.*

Type the the key sequence <control-a>H to open and close a capture file. Use <control-a>\ to close the port and quit the program.

This is a good reference to all the screen commands:
http://www.catonmat.net/download/screen.cheat.sheet.pdf

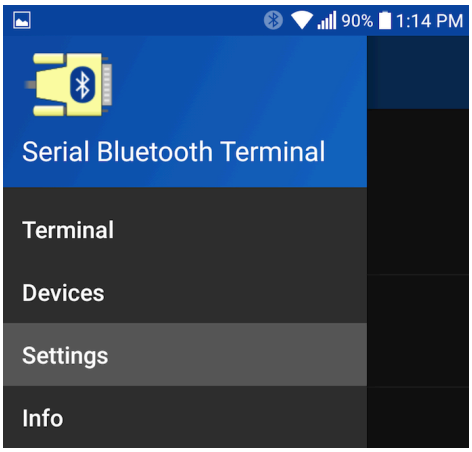
Bluetooth Serial Terminal for Android

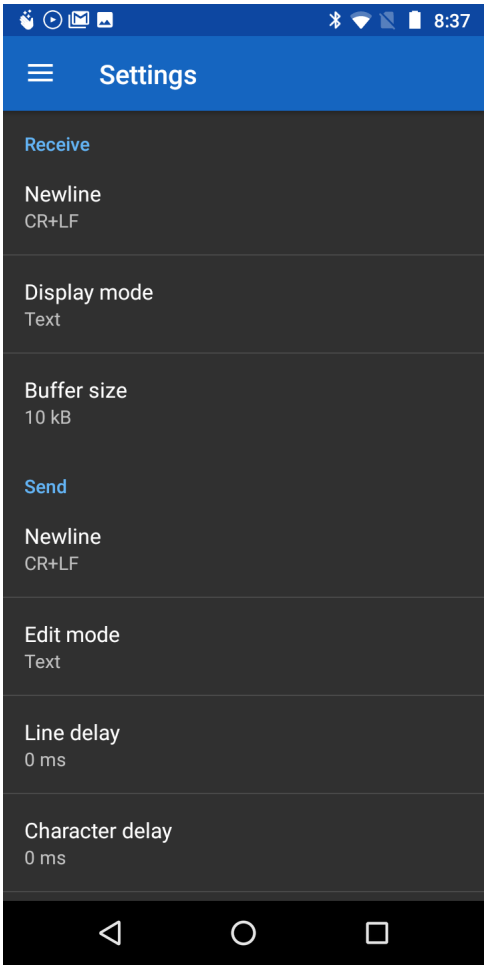
The Serial Bluetooth Terminal application is available in the **Google Play Store**.

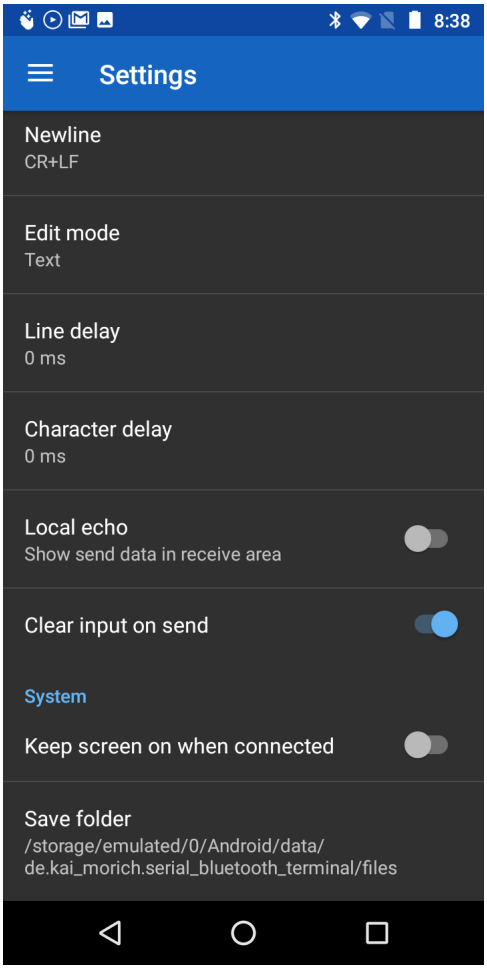


Settings

Once the application is installed, launch it, navigate to the **Settings** tab nested under the **menu** on the top left side of the screen, and configure the settings as shown.

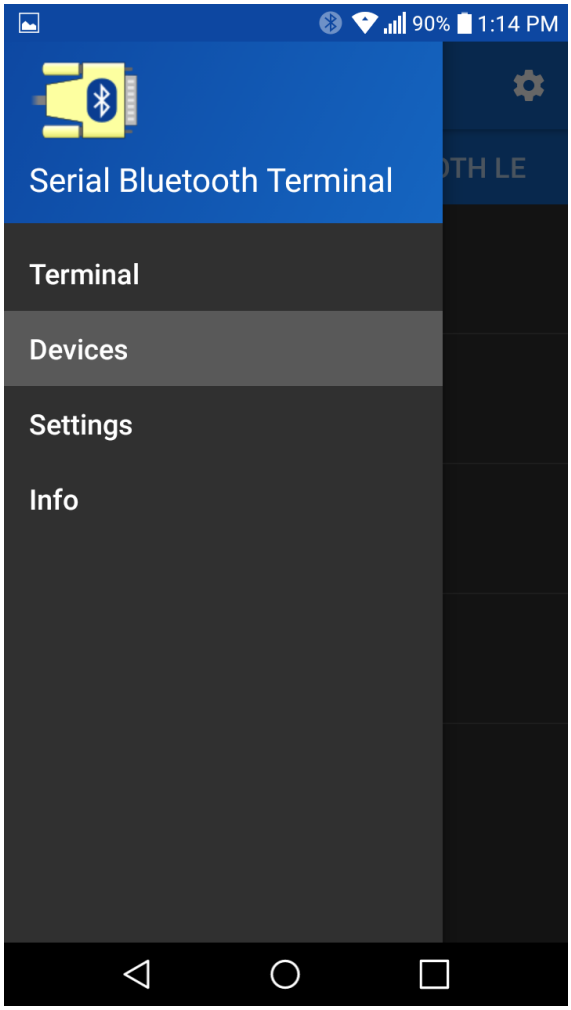


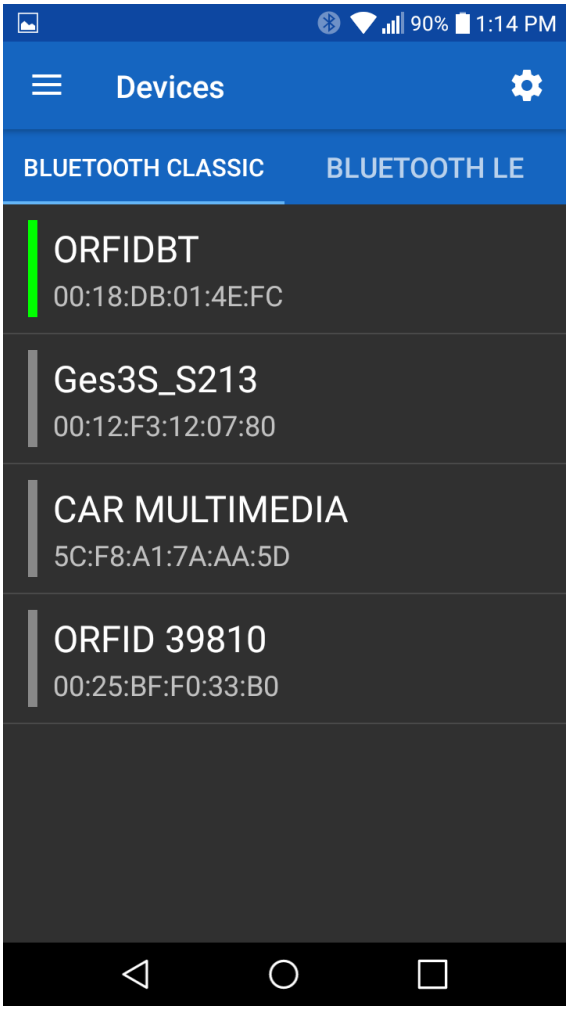




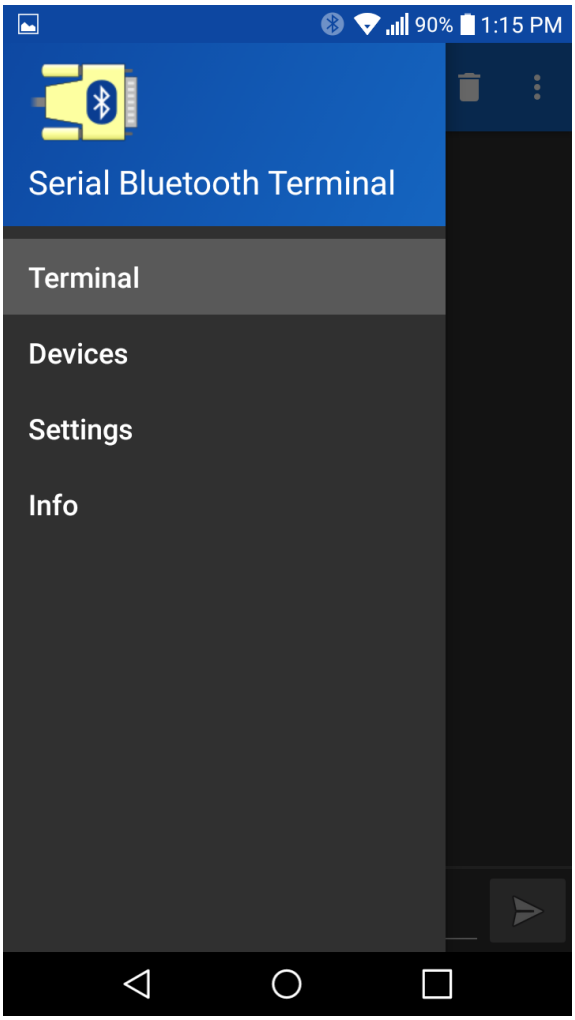
Connection

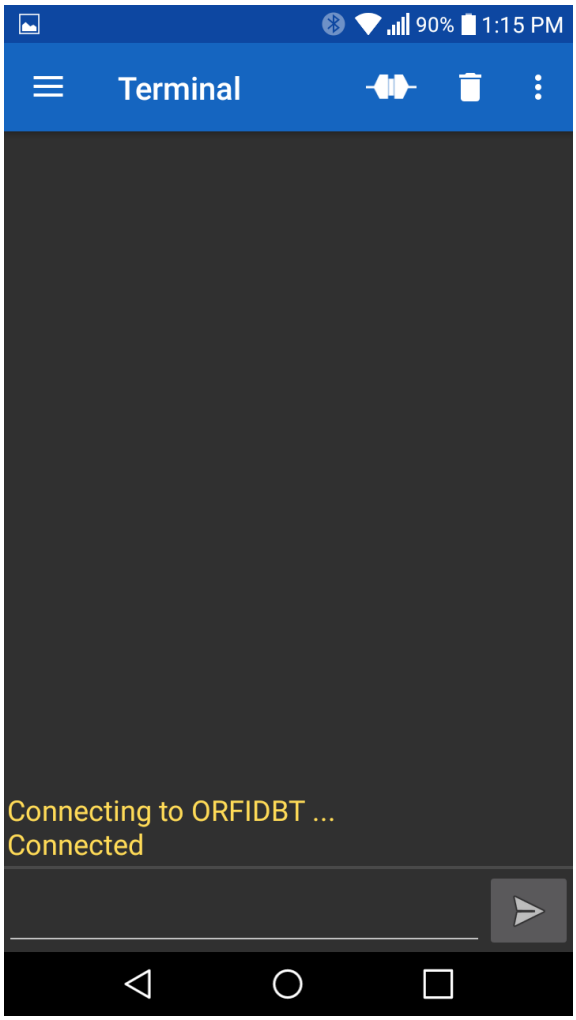
Next, navigate to the **Devices** tab and select the bluetooth adapter. The vertical bar next to the adapter name will turn green once you have selected it.





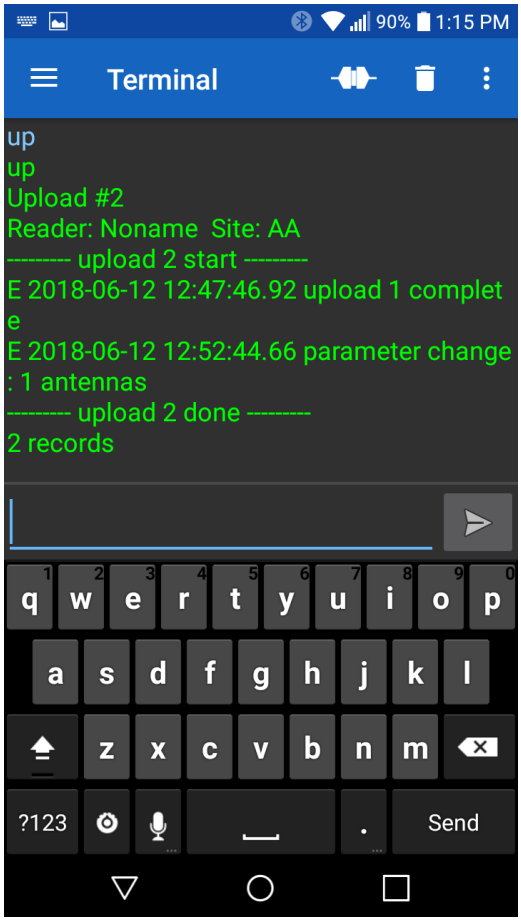
Navigate back to the **Terminal** tab and select the **white plug icon** on the top right side of the screen. The icon will close and a message will display as the terminal connects.

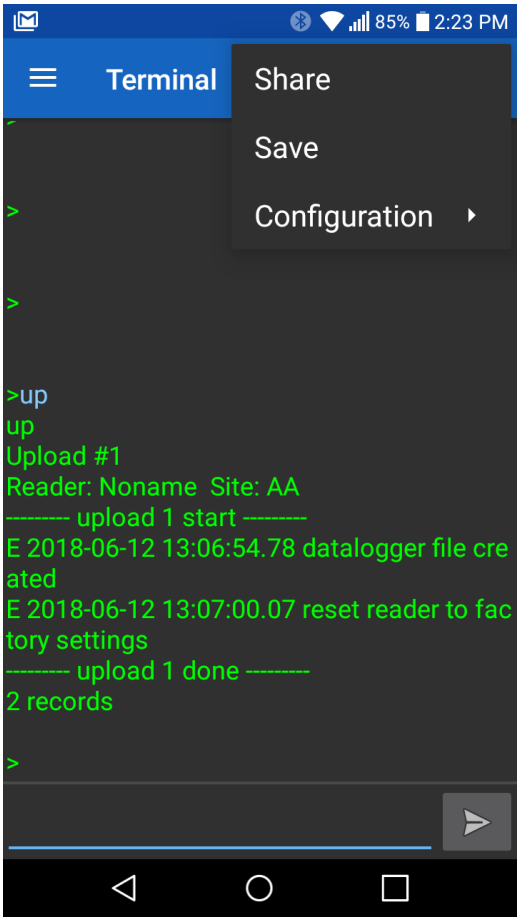




Using Bluetooth Serial Terminal

Once the connection is made with the reader, the command line interface is used to change settings and upload data to the SD card on the Android device.





To upload the newest data from the reader, type UP. The session may be saved to the Android device as a .txt file, or shared via email, text, or other applications using the options located in the **drop down menu** on the top right side of the screen.

To disconnect at the end of your session, press the **plug icon** again.

Oregon RFID manufactures equipment for tracking fish and wildlife (and rocks!) using low frequency passive RFID tags and readers. Our products are used worldwide for scientific research and commercial operations.

We provide toll-free technical support by phone or email to help you design and build your monitoring system.

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