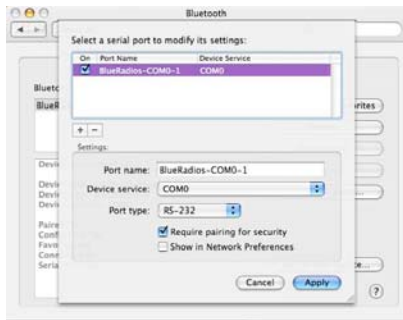


# HOWTO: Mac OS X Bluetooth Serial Port

Reference:

<http://todbot.com/blog/2006/02/23/howto-mac-os-x-bluetooth-serial-port/>

Bluetooth supports many "profiles" for doing various things (phone headset, address book syncing, file exchange, etc.) One of these profiles is the "COM" profile and is a simple serial port: raw binary data transmit and receive. That's the profile these Bluetooth serial adapters speak. All Bluetooth stacks on computers appear to support the COM profile.



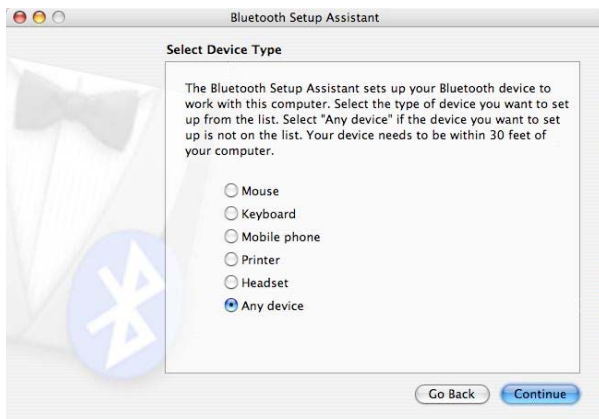
Most serial Bluetooth modules speaks only the COM profile and when powered on and set up, looks just like a normal serial port to software. In truth it looks a little like a modem, because you can escape into a "command mode" that has an AT-compatible configuration language.

The full steps are below.

## Step 0: Plug in / power up your Bluetooth-to-serial adapter

This is application-specific, but do whatever you need to do to get the Bluetooth adapter hooked up to your gizmo you want to wirelessly control and give it power.

## Step 1: Turn on Bluetooth and start Bluetooth Setup Assistant



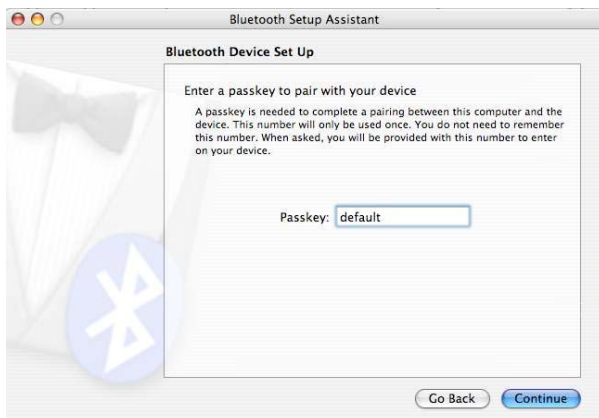
Open Bluetooth Preferences, turn Bluetooth on the "Settings" tab, then select the "Devices" tab and click the "Set Up a New Device" button. For type of device, choose "Any Device". Click "Continue" to begin scanning for the Bluetooth serial adapter.

## Step 2: Device found



The device should be found within a few seconds. At first you'll see its Bluetooth address and then that will change to be the name of the adapter. This name is not unique and all serial Bluetooth modules will probably have the same name.

## Step 3: Pair with adapter



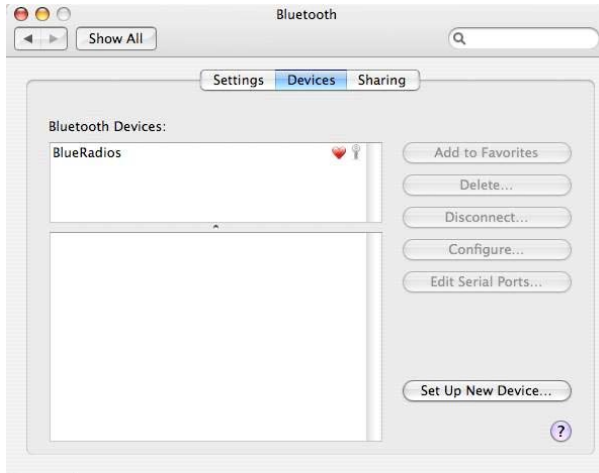
Bluetooth devices usually exchange a pin code. So refer to the user guide and tell the Mac the correct code and continue. (You can change the PIN later if you want by using the "AT" commands)

## Step 4: Look at Bluetooth Setup Assistant be confused



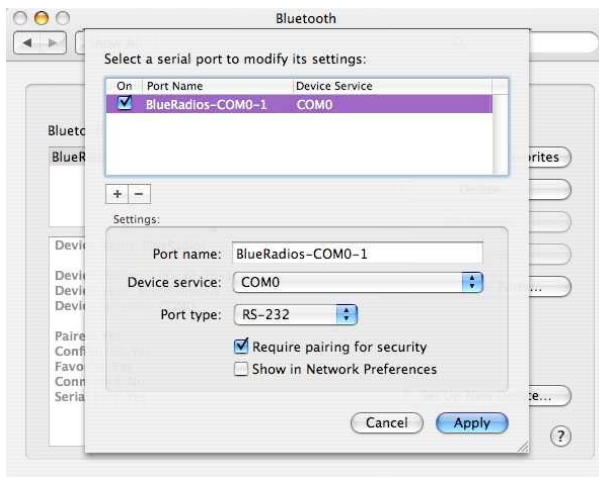
If the pairing was successful, you'll get the above screen. Don't worry, everything is fine. Bluetooth serial adapters are rare enough that the wizard doesn't have a case for what to display. Just click "Continue".

## Step 5: Observe your handiwork



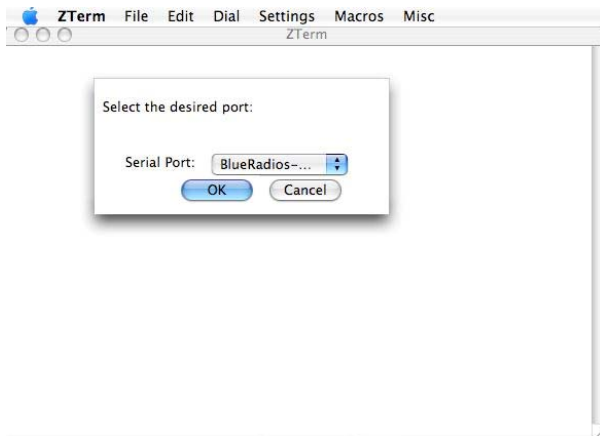
You should now have a "BlueRaios" device in your device list. Select it and click "Edit Serial Ports..."

## Step 6: Configuring Serial Ports



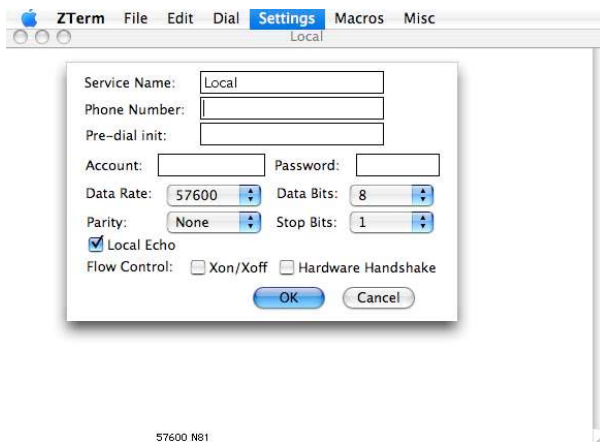
As you can see, the serial port is already set up for you the way it should be. The only thing to add is to tick "Require pairing for security" some modules may require it. Now you have a working Bluetooth serial port. You can access it with any program that speaks to serial ports. One of the best GUI programs to do this is [ZTerm](#).

## Step 7: Launch ZTerm and Pick your Port



When launching ZTerm, hold down the Shift key so you can select a port. Select the port you saw in the previous step. It should be "BlueRadios-COM0-1".

## Step 8: Configure ZTerm



Set up ZTerm like above. 57600 bps, 8N1 is a default speed for many devices. The "Local Echo" is so you can see what you type for the steps below.

## Step 9: Configuring your device




A screenshot of the ZTerm application window. The title bar shows 'ZTerm' and standard macOS window controls. The menu bar includes 'File', 'Edit', 'Dial', 'Settings', 'Macros', and 'Misc'. The main text area contains the following text: '+++', 'OK', 'AT', 'OK', and 'ATSW20,236,0,0,1'. The status bar at the bottom displays '0:19', '24x80', 'Ok', and '57600 N81'.

The serial Bluetooth module should power up in “data mode”, that is, it’s like a virtual cable with nothing in between. You can command it however to change how it behaves.

Just like an old AT-compatible mode, you enter command mode with “+++” and pressing Return. It should respond with “OK”. To verify, type “AT” and Return again, and it should again respond with “OK”. Now type “ATSW20,236,0,0,1”. This magic incantation changes the speed and other serial parameters of the other ‘side’ of the serial Bluetooth to 57600 8N1. This needs to be done because by default, it comes up at something like 19200 bps.

## Step 10: Finishing up



A screenshot of the ZTerm application window, similar to the one in Step 9. The title bar and menu bar are the same. The main text area contains: '+++', 'OK', 'AT', 'OK', 'ATSW20,236,0,0,1', 'OK', 'ATMD', 'OK', and 'gsdfasdfasdfasdf'. The status bar at the bottom displays '0:42', '24x80', 'Ok', and '57600 N81'.

If you’re unix-saavy, you can see the serial ports along with all the others by doing an “ls /dev/cu.\*” in the Terminal. And if you know how to write code to speak to serial ports, just use /dev/cu.BlueRadsio-COM0-1 as the serial port.