



# Getting Started with Shimmer3

## Streaming to Windows PC

March 2015



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# REQUEST WEBSITE MEMBERSHIP

IMPORTANT: To access the download and documentation sections on our website you need to request website membership at:

<http://www.shimmersensing.com/shimmer-website-membership/redirected>.

# CONFIGURE YOUR *SHIMMER DOCK* (1/5)

A *Shimmer Dock* is needed in order to program the Shimmer with firmware.

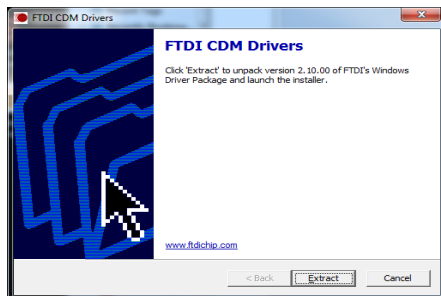
See also: *Shimmer3 Getting Started Video Tutorial*<sup>†</sup> - 1:38

**WARNING:** Do not connect the *Shimmer Dock* to the PC until STEP 3!

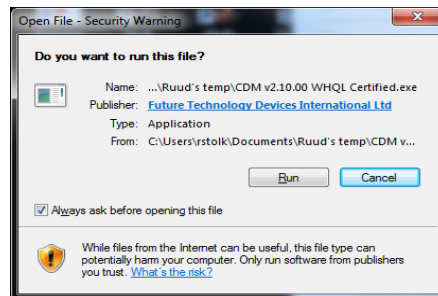
STEP 1 - Download the drivers. The driver package can be downloaded through this [link](#)<sup>\*</sup>.

STEP 2 - Install the driver. Double-click the downloaded file to start the driver installation, and follow the instructions.

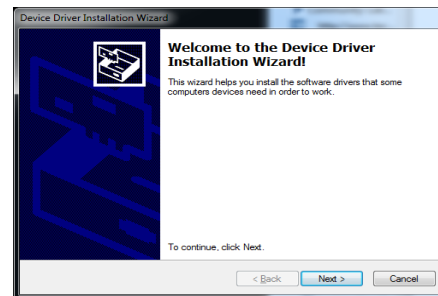
Click extract:



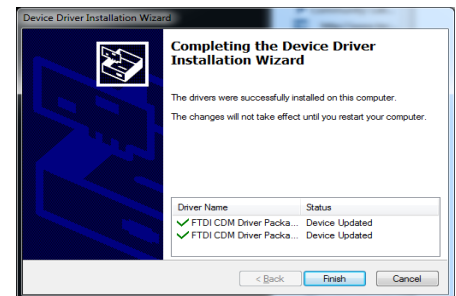
Click Run:



Click Next:



Click Finish:

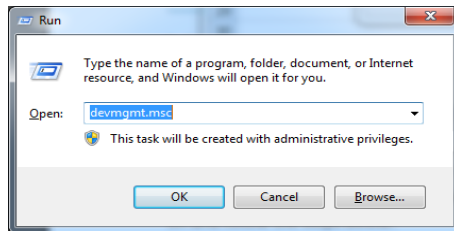


Restart your PC if requested.

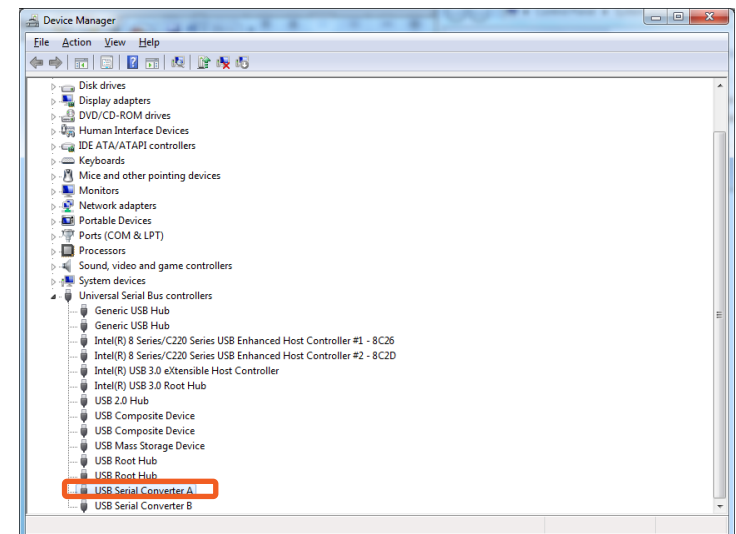
# CONFIGURE YOUR *SHIMMER DOCK* (2/5)

STEP 3 - Configure serial connection. Connect the *Shimmer Dock* to the PC through USB. Wait till the Windows completes the driver installation.

Run the Device Manager: Press [Windows Key] + R; type *devmgmt.msc*; click OK.

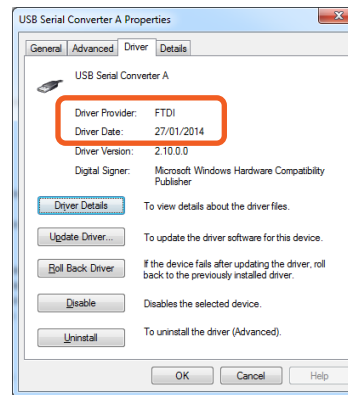


Go to Universal Serial Bus controllers and right-click on USB Serial Converter A\*:



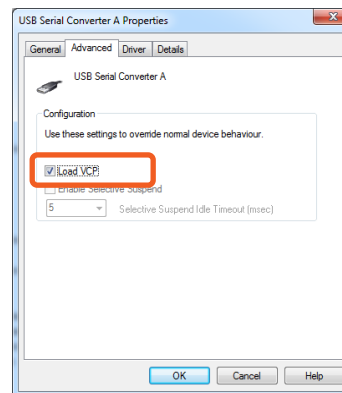
# CONFIGURE YOUR *SHIMMER DOCK* (3/5)

Click **Properties**. Check the Driver tab:



If the installed driver is provided by FTDI and dated 27/01/2014 or later, then the driver installation has been successful.

In the Advanced tab, enable Load VCP:



Repeat for USB Serial Converter B.

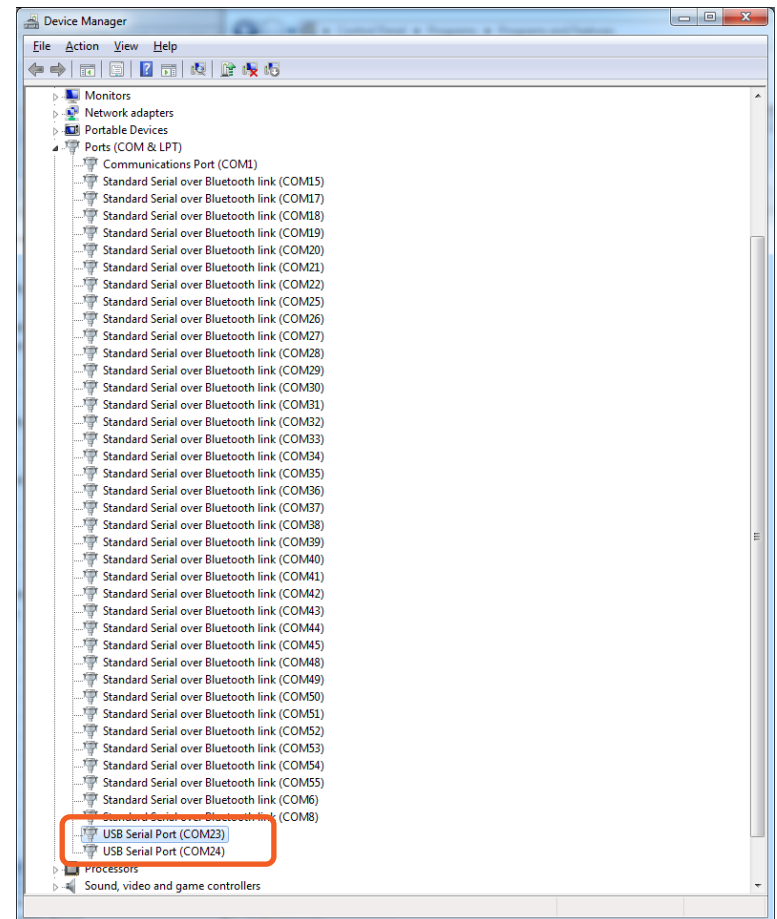
# CONFIGURE YOUR *SHIMMER DOCK* (4/5)

Go back to Device Manager. In the Ports (COM & LPT) section there are two USB Serial Ports. The programming port is the USB Serial Port with the lowest COM Port number.

In this example the **Programming Port is COM23**.

The second port is the UART port.

This is COM24 in the example.

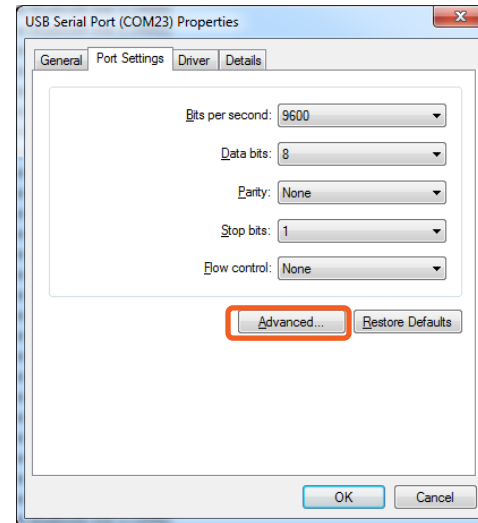
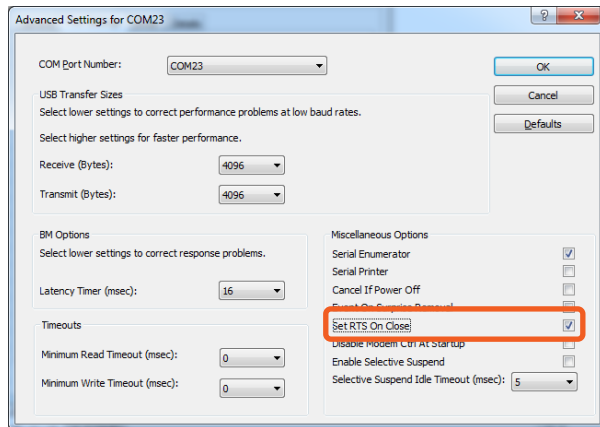


# CONFIGURE YOUR *SHIMMER DOCK* (5/5)

Right-click on USB Serial Port (COM23). Click **Properties**.

Go to the Port Settings tab and click Advanced...

Enable *Set RTS on Close*.



Repeat **both** steps for the other Universal Serial Port - COM24 in this example.

NOTE: Make sure *Load VCP* is and *Set RTS on Close* are ticked for both Universal Serial Converters!



# PROGRAMMING THE SHIMMER (1/3)

See also [Shimmer3 Getting Started Video Tutorial<sup>†</sup>](#) - 4:16

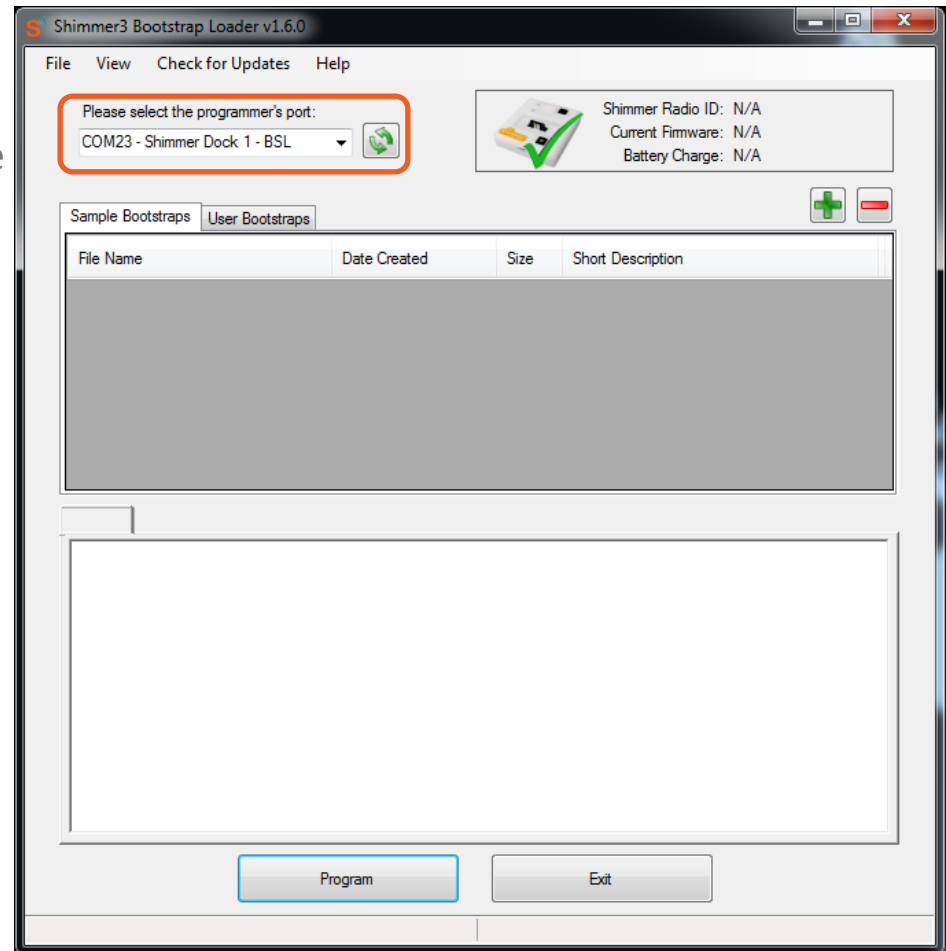
Power on and place Shimmer on the dock. The Shimmer is powered on if the orange switch is in the following position:



Download and extract the most recent *Shimmer3 Bootstrap Loader (BSL)* zip-file from the Shimmer website and run the executable by double-clicking on it.

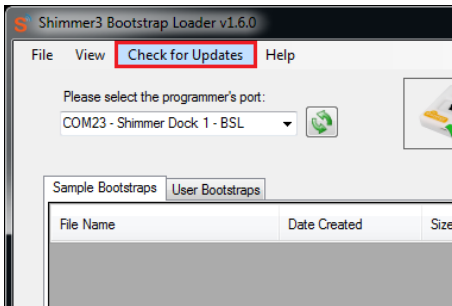
The Programming Port is automatically detected. (In this example, it is 'COM23').

If automatic detection fails, use the drop-down to select the Programming Port.

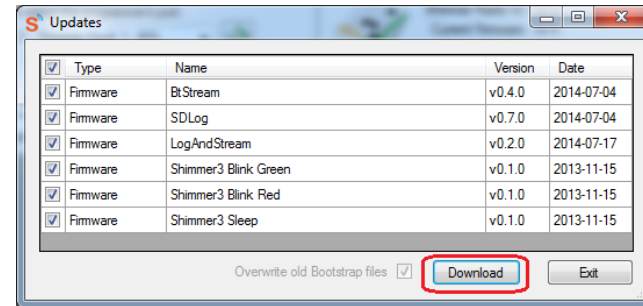
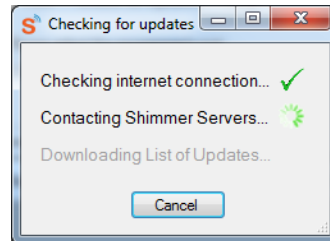


# PROGRAMMING THE SHIMMER (2/3)

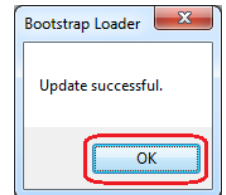
Click Check for Updates.



Click Download.

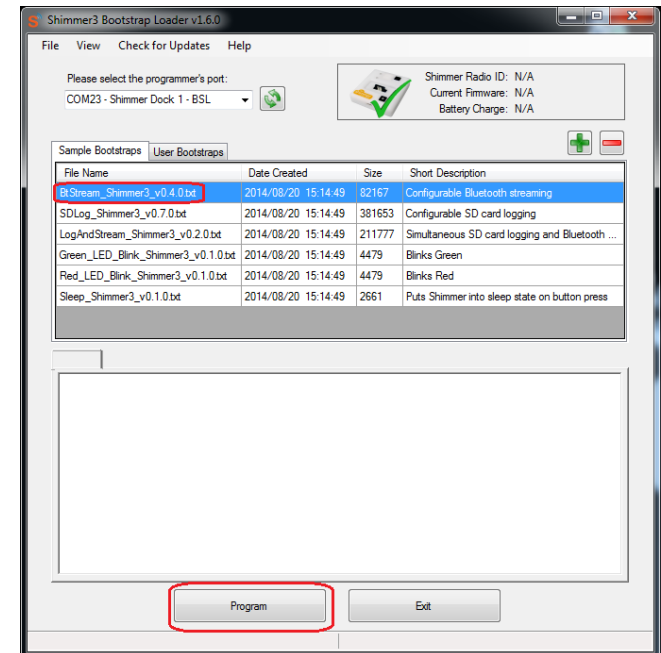


Click OK.



Select the latest *BtStream* bootstrap  
(BtStream\_Shimmer3\_v0.4.0.txt in this example).

Click the Program button.



# PROGRAMMING THE SHIMMER (3/3)

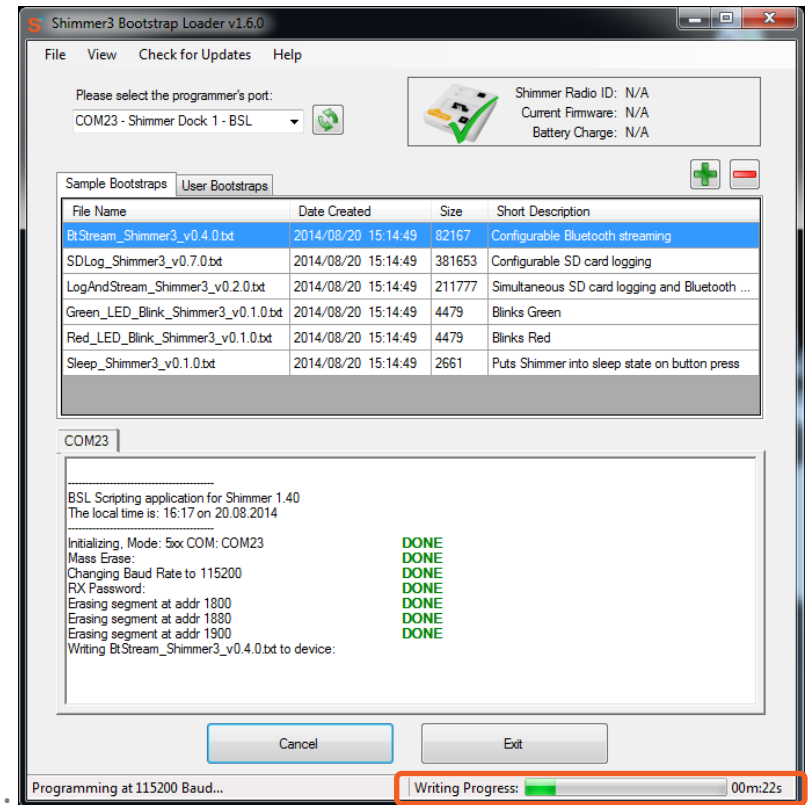
Programming underway:

NOTE: Programming can take up to 5 minutes.

Remaining time indicated in Status bar.

If programming fails, make sure:

1. The Shimmer is powered on.
2. The Dock is securely connected to the PC via USB.



When programming is complete, click OK on the popup widow and Exit the BSL program.

# PAIRING THE SHIMMER OVER BLUETOOTH (1/2)

See also *Shimmer3 Getting Started Video Tutorial*<sup>†</sup> - 5:25

For Bluetooth communication the PC needs a built-in Bluetooth adapter or a Bluetooth USB dongle. Shimmer does not supply Bluetooth dongles.

In order to establish a Bluetooth connection between the Shimmer and PC, the Shimmer needs to be paired with the PC.

## Notes:

1. Make sure the Shimmer is powered on and is programmed with *BtStream* before starting the pairing process.
2. It is important to ensure a clear line of sight between the Shimmer and the BT radio of your PC and to keep the distance as short as possible.

For an explanation of the behaviour of the status LEDs on the Shimmer, refer to the *Shimmer3 Getting Started Video Tutorial* and the *Shimmer User Manual*, available [here](#).

# PAIRING THE SHIMMER OVER BLUETOOTH (2/2)

Go to *Control Panel* → *Hardware and Sound* → *Add a device*.

Select the device with the radio ID of your *Shimmer3* (Shimmer3-978B in this example).

Click Next.

Select pairing option: “Enter the device’s pairing code”.

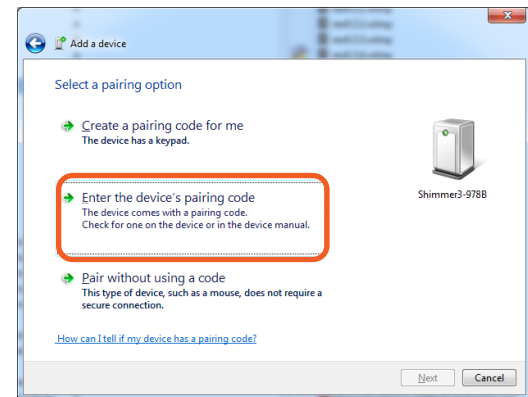
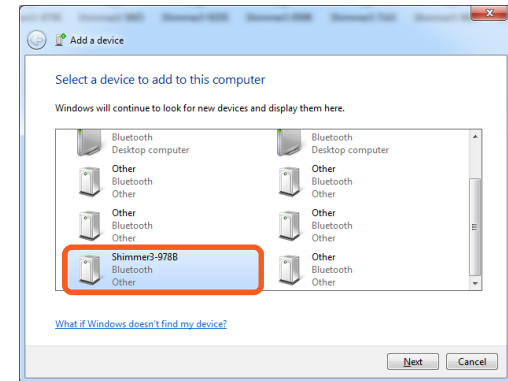
Click Next.

Enter the pairing code for the device: 1234.

Click Next.

Windows will install the required drivers for the device.

In the rare occasion that pairing is unsuccessful, please try again.



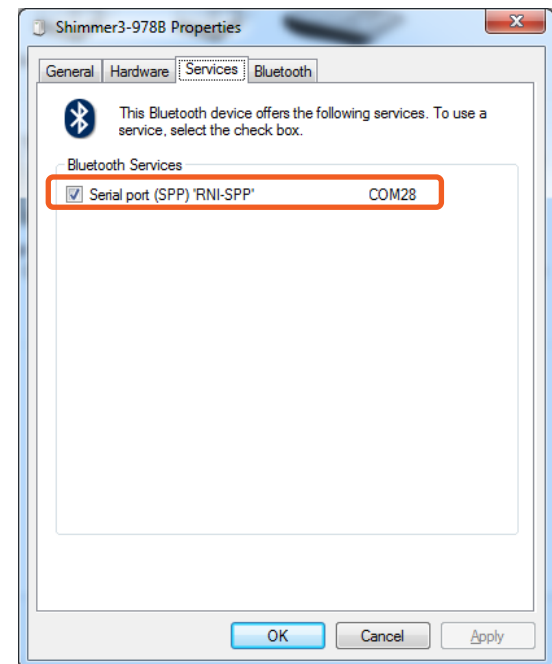
# GET THE BT COM PORT

See also [\*Shimmer3 Getting Started Video Tutorial\*](#)<sup>†</sup> - 6:24

Go to *Control Panel* → *Hardware and Sound* → *Devices and Printers*.

Right-click on the Bluetooth device with the radio ID of your *Shimmer3*.

Click **Properties** and check the *Services* tab:



In this example the COM Port that the Shimmer uses for Bluetooth communication is COM28.

# CONNECT TO *SHIMMER*CAPTURE

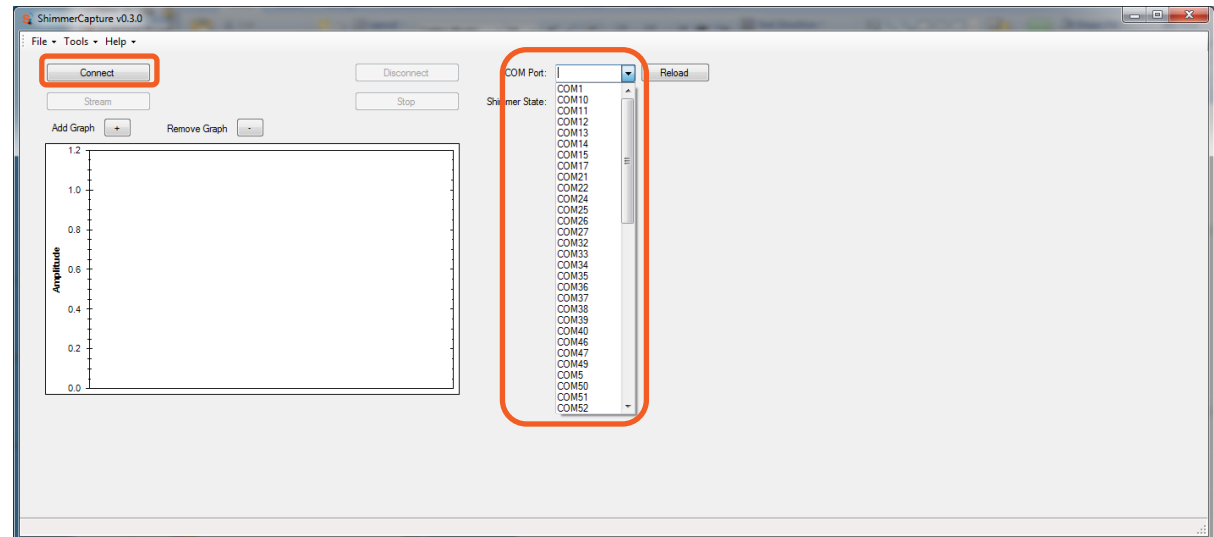
Download the latest version of *ShimmerCapture* from the Shimmer website.

Extract the downloaded zip-file and run *ShimmerCapture* by double-clicking the executable.

Choose *Run* if a Security Warning pops up.

Select the COM Port that the Shimmer uses for Bluetooth communication, see previous section.

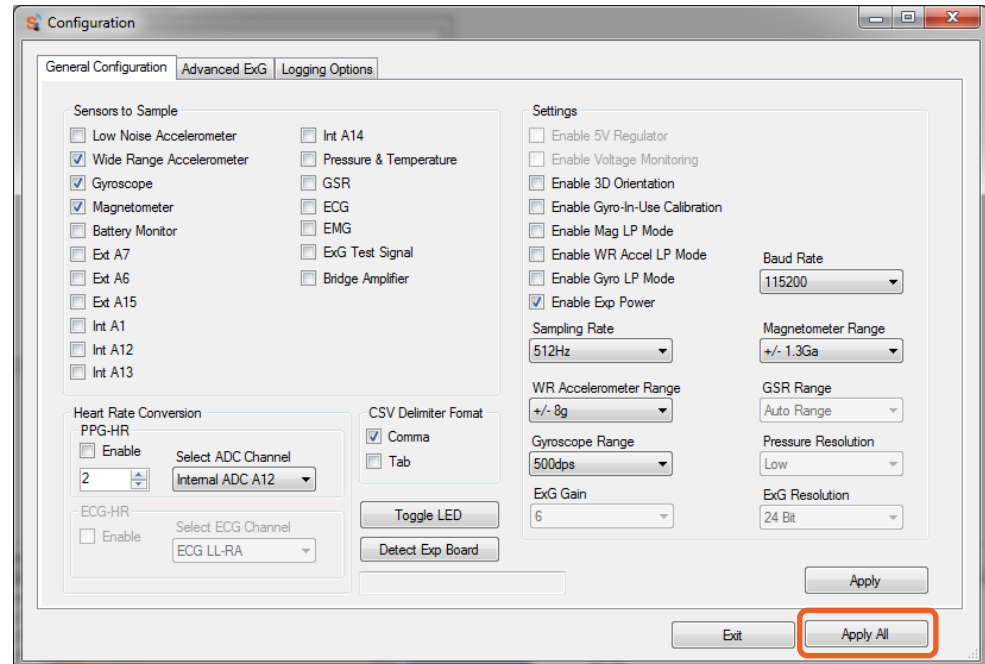
Click Connect.



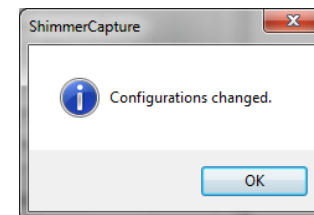
The status bar provides feedback on connection progress.

# CONFIGURE THE SHIMMER

Click *Tools* → *Configuration* to enable sensors, set ranges and set the sampling rate of the Shimmer.



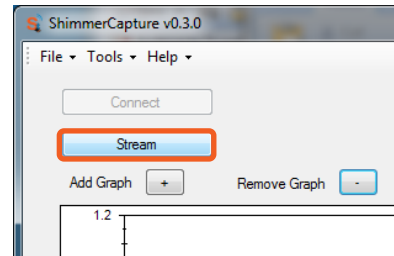
Click *Apply All* to save and apply the new configuration.





# STREAM DATA

Click Stream to start streaming.



Select signals to plot by selecting their checkboxes (choose Raw or Calibrated data).

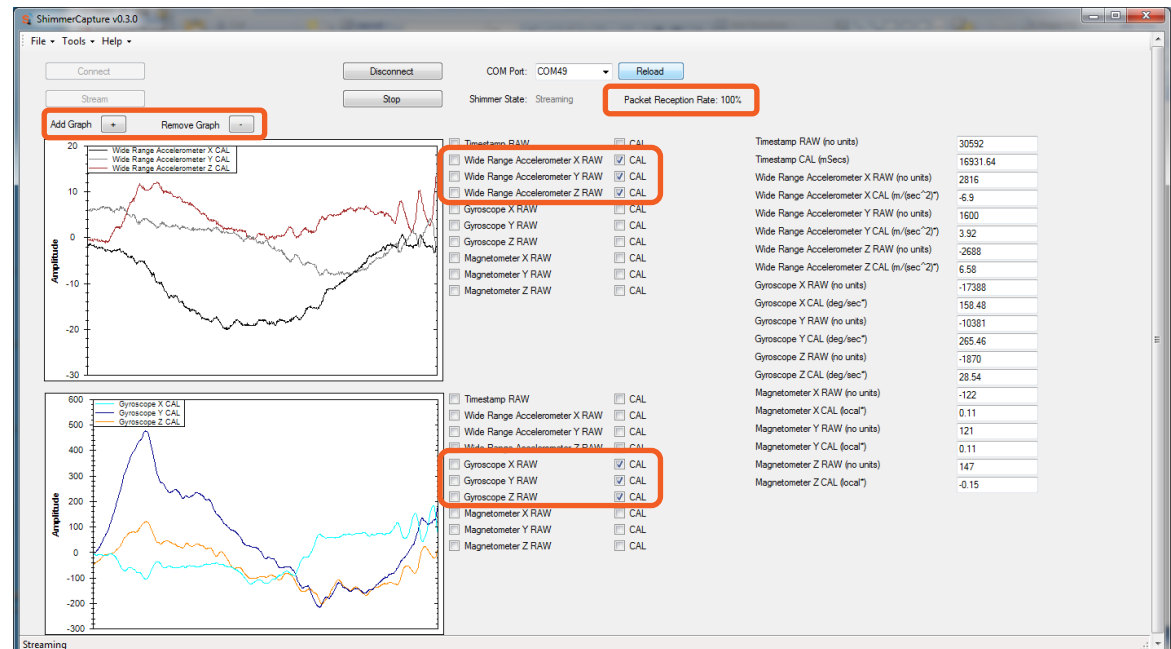
Add a new graph by selecting the “+” button.

Remove the last graph by selecting the “-” button.

Packet reception rate is indicated.

Click Stop to finish streaming.

Click Disconnect before powering Shimmers off.



# FURTHER INFORMATION

Check out the documentation section on our website, which includes user manuals and guides for all Shimmer hardware and software.

It is highly recommended that all new Shimmer users read the *Shimmer User Manual*, available for download from [www.shimmerversensing.com](http://www.shimmerversensing.com).