

## Testing

Once the TUIO server application is running then any application that is a TUIO client should respond to touches.

Netcat command

The [NetCat command](#) can be used to view data on the TCP / UDP port configured for TUIO.

TUIO is a bit odd in that the client and server nomenclature are reversed. The TUIO client is actually a UDP server waiting for a connection, and the TUIO server is actually a UDP client connecting and sending data to a UDP server.

So to see whether or not UPDD TUIO is sending out data you can use the netcat command:

`nc -u -4 -l localhost 3333` (in a local host configuration)

The addition of '-l' means that it will listen for data as a server (i.e. like a TUIO "client" would) instead of attempting to create a connection to a server.

We also use the following TUIO applications for our tests:

### **TUIODemo**

For the basic Java TUIO client:

1. Go to <http://www.tuio.org/?software>
2. Click the link under "TUIO Client Reference Implementations" named TUIO\_JAVA.zip. TUIO\_JAVA.zip should download automatically
3. Unzip the file
4. In the TUIO\_JAVA folder, open TuioDemo.jar. A window should appear with the title "TuioDemo" which should display touches.

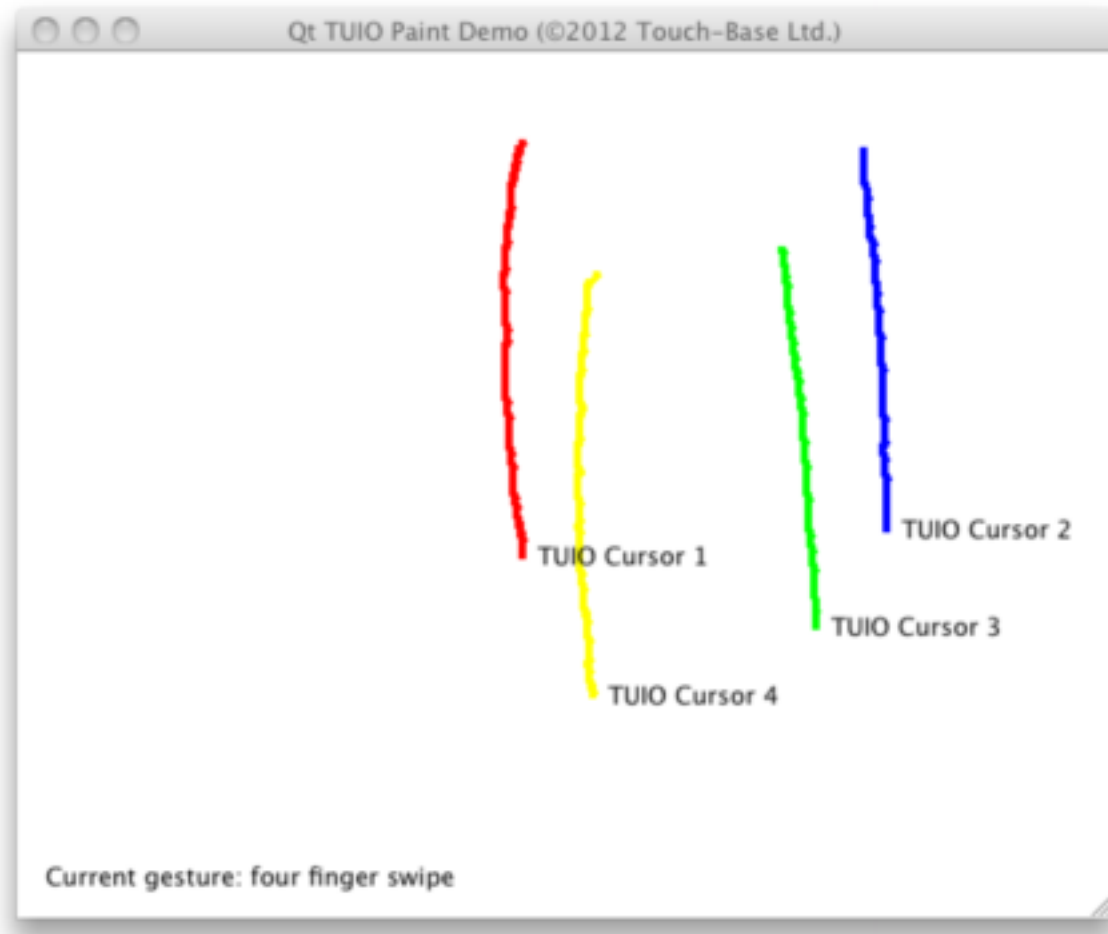
Java must be installed on a system for the above demo to work

<http://www.java.com/en/download/index.jsp>

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### QtTUIOTouchDemo

This demo program was written in-house to test our UPDD TUIO server and is available [here](#). In this example the TUIO server has been loaded and the QtTUIOTouchDemo program listed to turn off mouse emulation when top most so that only the TUIO touches are recorded: The calculated gesture is also shown. An example of 10 touches can be seen [here](#).



Touch-Base Support

<http://support.touch-base.com/Documentation/50224/Testing>