

ACCESSAGILITY

WiFiPerf User Guide 2.0

For iOS and Android Devices



AccessAgility LLC

© 2014 AccessAgility LLC.

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without prior written permission of AccessAgility LLC, with the following exceptions: Any person is hereby authorized to store documentation on a single computer for personal use only and to print copies of documentation for personal use provided that the documentation contains AccessAgility's copyright notice.

The AccessAgility word mark is a registered trademark of AccessAgility LLC. Use of the AccessAgility logo for commercial purposes without the prior written consent of AccessAgility may constitute trademark infringement and unfair competition in violation of federal and state laws.

No licenses, express or implied, are granted with respect to any of the technology described in this document. AccessAgility retains all intellectual property rights associated with the technology described in this document. Every effort has been made to ensure that the information in this document is accurate. AccessAgility is not responsible for typo- graphical errors.

AccessAgility LLC

8601 Westwood Center Drive Suite 250

Vienna, VA 22182

703-870-3949

Even though AccessAgility has reviewed this document, ACCESSAGILITY MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS DOCUMENT, ITS QUALITY, ACCURACY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS DOCUMENT IS PROVIDED "AS IS," AND YOU, THE READER, ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND ACCURACY. IN NO EVENT WILL ACCESSAGILITY BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT OR INACCURACY IN THIS DOCUMENT, even if advised of the possibility of such damages THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No AccessAgility dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

TABLE OF CONTENTS

INTRODUCTION	4
WIFIPERF TESTING OPTIONS	5
GETTING TO KNOW THE WIFIPERF APPLICATION	6
MENU	6
TEST	6
GRAPH	7
AS SERVER.....	9
LOG	9
ADDITIONAL SCREENS AND REPORTS.....	10
SEARCH POP-UP WINDOW	10
TEST SETTINGS	11
REPORTS	12

INTRODUCTION

WiFiPerf is a bandwidth performance measurement app for iOS, Android, and Mac OS X. It can operate as a client and/or server. Use WiFiPerf for Mac OS-to-Mac OS, iOS/Android-to-iOS/Android, testing or iOS/Android-to-Mac OS testing.

Compatibility: WiFiPerf is based on iPerf3 version 3.0-BETA4 (2 Aug 2010) source code. Future updates to WiFiPerf will be compatible with iPerf 3.0.1 or newer.

iPerf3

WiFiPerf should work with other operating systems that support iPerf3 but has only been tested with iPerf3 for Mac OS. (iPerf3 is the program upon which WiFiPerf is built)

Command Line / Terminal Version of iPerf3 Version 3.0-BETA4 (2 Aug 2010)

[MAC OS IPERF3 VERSION 3.0-BETA4](http://cdn.accessagility.com/downloads/iperf3.zip)

<http://cdn.accessagility.com/downloads/iperf3.zip>

Note: iPerf3 is not the same or compatible with iPerf, iPerf2 or jPerf.

WIFIPERF TESTING OPTIONS

Measure throughput FROM your device to another



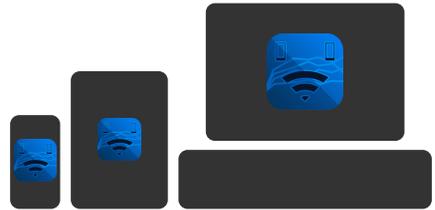
THROUGHPUT →



Measure throughput TO your device from another



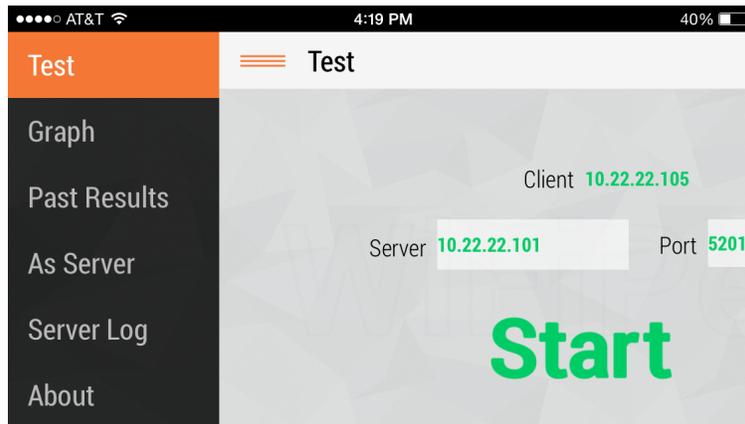
← **THROUGHPUT**



GETTING TO KNOW THE WIFIPERF APPLICATION

Menu

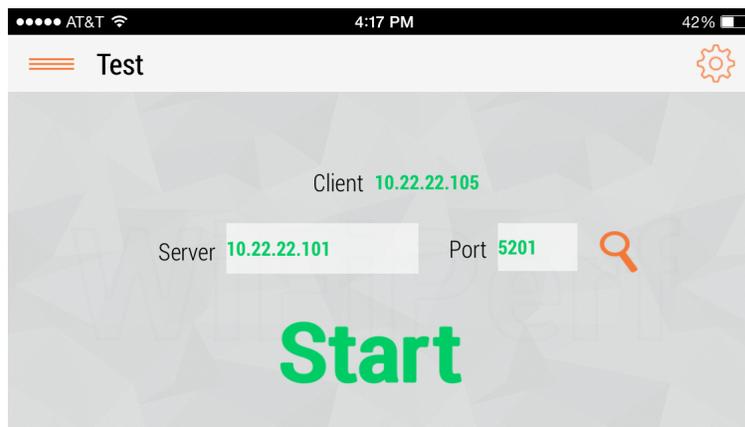
The menu can be accessed on all main screens by pressing the menu icon in the top left or by simply swiping to the right.



Test

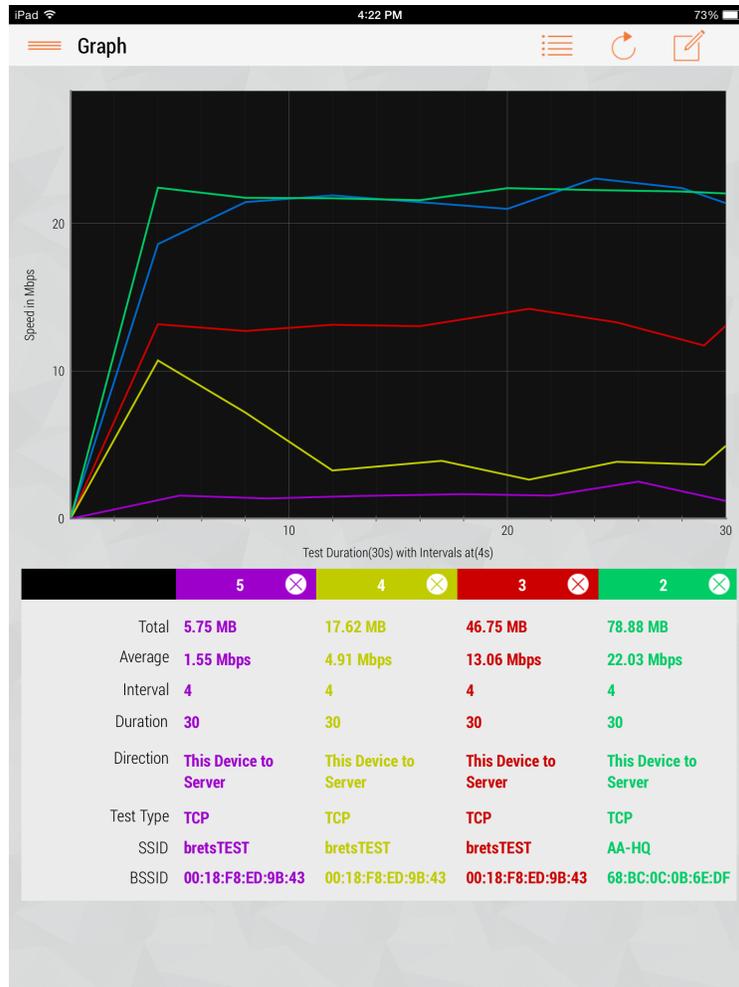
This is the default home screen. Access to settings, discoverable devices, and starting/stopping tests can be achieved here. The Server IP address and port number can be entered manually or pressing the search button opens the discoverable device screen (described under Bonjour Services).

The Client and Server must be on the same network and BOTH running WiFiPerf to connect. Once the Server information is entered, press “Start”.



Graph

Once a test is started, WiFiPerf will automatically display the Graph screen. As the test progresses, the graphed results will appear and the test results will be shown below the graph.



Up to five test results can be displayed and compared on the graph at once. Using the email icon in the upper right-hand corner, you can email this graph and table.

Past Results

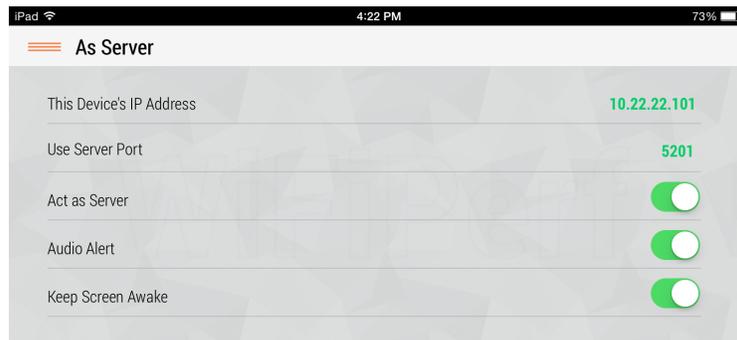
Here you will find all of your completed tests. You have the option of deleting these tests, emailing the results, or selecting/deselecting multiple tests to be shown on the graph screen.

Test ID	Test Name	MAC Address	Direction	Destination IP
5	bretsTEST	00:18:F8:ED:9B:43	This Device	10.22.22.100
	Interval	Transfer Size	Throughput	Direction
	0-31 s	5.75 MB	1.55 Mbps	This Device to Server
	26-31 s	0.50 MB	0.86 Mbps	Test Type TCP
	22-26 s	1.25 MB	2.52 Mbps	Duration 30
	18-22 s	0.75 MB	1.55 Mbps	Interval 4
	13-18 s	0.88 MB	1.65 Mbps	Average 1.55 Mbps
4	bretsTEST	00:18:F8:ED:9B:43	This Device	10.22.22.105
	Interval	Transfer Size	Throughput	Direction
	0-30 s	17.62 MB	4.91 Mbps	This Device to Server
	25-29 s	1.75 MB	3.65 Mbps	Test Type TCP
	21-25 s	2.00 MB	3.84 Mbps	Duration 30
	17-21 s	1.25 MB	2.62 Mbps	Interval 4
	12-17 s	2.00 MB	3.91 Mbps	Average 4.91 Mbps
3	bretsTEST	00:18:F8:ED:9B:43	This Device	10.22.22.101
	Interval	Transfer Size	Throughput	Direction
	0-30 s	46.75 MB	13.06 Mbps	This Device to Server
	25-29 s	5.62 MB	11.72 Mbps	Test Type TCP
	21-25 s	6.50 MB	13.29 Mbps	Duration 30
	16-21 s	7.12 MB	14.23 Mbps	Interval 4
	12-16 s	6.25 MB	13.05 Mbps	Average 13.06 Mbps
2	AA-HQ	68:BC:0C:0B:6E:DF	This Device	10.10.120.250
	Interval	Transfer Size	Throughput	Direction
	0-30 s	78.88 MB	22.03 Mbps	This Device to Server
	24-28 s	10.75 MB	22.19 Mbps	Test Type TCP
	20-24 s	10.62 MB	22.28 Mbps	Duration 30
	16-20 s	11.00 MB	22.41 Mbps	Interval 4
	12-16 s	10.38 MB	21.58 Mbps	Average 22.03 Mbps
1	AA-HQ	68:BC:0C:0B:6E:DF	This Device	10.10.120.250
	Interval	Transfer Size	Throughput	Direction
				This Device to Server

The tests selected here will be shown and compared on the graph screen. This screen also shows more details for each test.

As Server

The “As Server” screen displays a few options about your device running as a server for WiFiPerf. It displays the current IP address of your device, gives you the option to change the default port number, toggle on/off being a server for other WiFiPerf devices, toggle on/off making an audible beep when a test is complete, and an option to keep the screen active while you are running the app (overrides system settings of putting the device to sleep).



Log

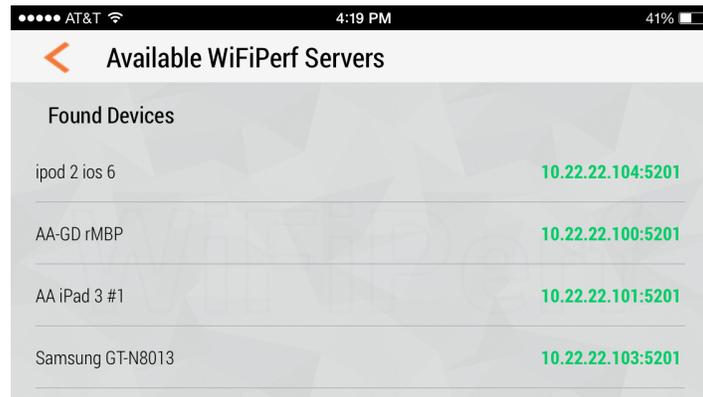
The Log holds information from tests where your device was the server.

IP Address	Time	Send (MB)	Receive (MB)	Send (Mbps)	Receive (Mbps)
10.22.22.105	Apr 17, 2014 16:17:05	29.12	29.12	7.95	7.95
10.22.22.105	Apr 17, 2014 16:16:23	24.62	24.62	6.81	6.81
10.22.22.102	Apr 17, 2014 15:59:02				

ADDITIONAL SCREENS AND REPORTS

Search Pop-Up Window

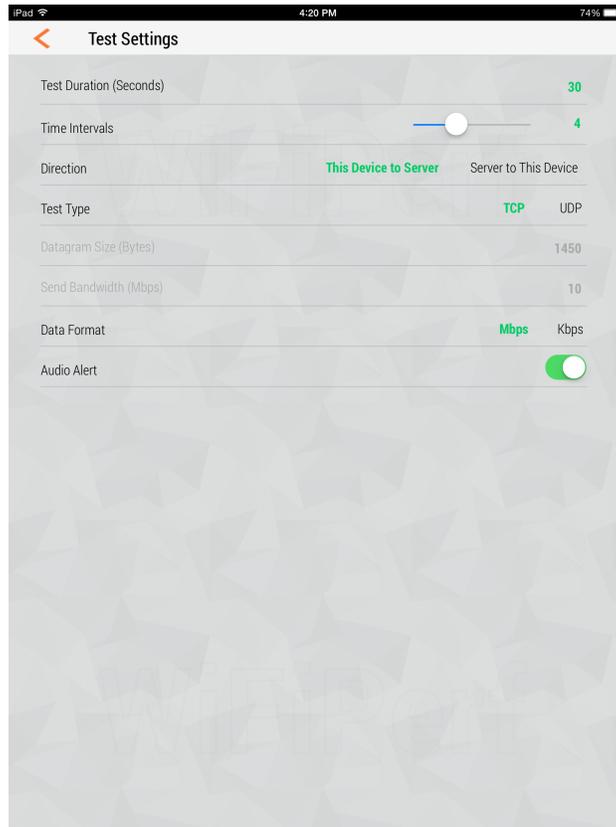
Using Apple's Bonjour Services, devices running this app on the LAN will appear in this screen. Select the desired device and the IP address will be put into the server slot.



Test Settings

Test Settings can be found on the test screen by pressing the cog icon in the top right.

Having more samples will yield more definitive results, but take longer to complete. The advanced settings allow you to test your network for more specific throughput scenarios.



Reports

Reports are created into HTML files for easy saving and logging. You can create a report for any test you select, or multiple tests as shown below. Reports include the summary table, the intervals for each test, and the graph for the selected test(s).

WiFiPerf Combined Reports

Export Date: 2014-05-05, 12:35:19

Summary:

Test #	SSID	BSSID	Client	Server	Direction	Test Type	Duration	Interval	Average
9	AANG-GUESTS	34:A8:4E:90:DE:5E	172.27.123.148	172.27.123.147	This Device to Server	TCP	30	4	10.17 Mbps
8	AANG-GUESTS	34:A8:4E:90:DE:5E	172.27.123.148	172.27.123.147	This Device to Server	TCP	30	4	13.88 Mbps
7	goa	00:23:04:5B:1D:6F	10.1.3.196	10.1.3.205	This Device to Server	TCP	30	4	18446762518791.88 Mbps
6	goa	00:23:04:5B:1D:6F	10.1.3.196	10.1.3.205	This Device to Server	TCP	30	4	7.15 Mbps
5	breasTEST	00:18:F8:ED:9B:43	10.22.22.105	10.22.22.101	This Device to Server	TCP	30	4	8.02 Mbps

Intervals

9

Interval	Transfer Size	Throughput
0-30 s	36.50 MB	10.17 Mbps
26-30 s	7.12 MB	14.36 Mbps
22-26 s	6.62 MB	13.81 Mbps
18-22 s	5.00 MB	10.30 Mbps
14-18 s	1.75 MB	3.52 Mbps
10-14 s	8.00 MB	12.45 Mbps
5-10 s	4.62 MB	9.54 Mbps
0-5 s	5.25 MB	8.08 Mbps

8

Interval	Transfer Size	Throughput
0-30 s	49.75 MB	13.88 Mbps
25-29 s	7.25 MB	15.09 Mbps
20-25 s	6.62 MB	13.73 Mbps
16-20 s	6.75 MB	13.72 Mbps
12-16 s	7.00 MB	14.59 Mbps
8-12 s	6.75 MB	13.24 Mbps
4-8 s	7.25 MB	15.19 Mbps
0-4 s	6.75 MB	13.92 Mbps

7

Interval	Transfer Size	Throughput
0-0 s	0.12 MB	18446762518791.88 Mbps
24-28 s	2.88 MB	6.01 Mbps
20-24 s	4.62 MB	9.66 Mbps
16-20 s	3.88 MB	7.97 Mbps
12-16 s	4.25 MB	8.65 Mbps
8-12 s	4.38 MB	8.99 Mbps
4-8 s	3.75 MB	7.83 Mbps
0-4 s	4.62 MB	9.66 Mbps

6

Interval	Transfer Size	Throughput
0-30 s	25.62 MB	7.15 Mbps
25-29 s	4.12 MB	8.64 Mbps
21-25 s	3.38 MB	6.94 Mbps
17-21 s	2.75 MB	5.58 Mbps
13-17 s	5.00 MB	10.37 Mbps
8-13 s	2.38 MB	4.83 Mbps
4-8 s	3.12 MB	6.28 Mbps
0-4 s	3.38 MB	6.59 Mbps

5

Interval	Transfer Size	Throughput
0-30 s	29.12 MB	8.02 Mbps
25-29 s	4.00 MB	8.34 Mbps
21-25 s	5.00 MB	9.96 Mbps
16-21 s	3.88 MB	7.95 Mbps
12-16 s	3.62 MB	7.32 Mbps
8-12 s	4.12 MB	8.48 Mbps
4-8 s	3.25 MB	6.69 Mbps
0-4 s	4.50 MB	9.21 Mbps

- 9
- 8
- 7
- 6
- 5

