



Release Notes - Setting up the Myomonitor III and Getting Started.

**Applies to Build 13 (070706) and later.
August 23, 2006**

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SYSTEM REQUIREMENTS

Recommended System Requirements

- IBM or 100% compatible system with an Intel Pentium 4, 1GHz processor and 512MB RAM memory or better
- Microsoft Windows 2000, Windows XP
- Sufficient hard disk space to install and run the products (at least 1GB)
- 1 free USB slot
- EMGworks 3.1 or higher

About these Notes

These release notes are provided to assist you with installing your new hardware and software onto your PC so that you can begin using the Myomonitor as quickly as possible. The procedures and images outlined in this document are representative of those that will be encountered on most computers. However, in some cases variations in these may exist. If you encounter difficulty in following these directions, do not hesitate to contact our Technical Support Department.

The successful operation of the Myomonitor Wireless EMG System requires you to complete each of the following Stages. This document addresses Stages 4 and 5. Please see the Release Notes- Installing a Wireless Receiver on the PC for Stages 1, 2 and 3.

Stage 1: Installing the Wireless USB Adapter on the PC.

Stage 2: Setting up the Peer-to-Peer Network on the PC.

Stage 3: Identifying the Host in the Peer-to-Peer Network on the PC.

Stage 4: Setting up the Peer-to-Peer Network on the Myomonitor.

Stage 5: Getting Started with the Myomonitor and EMGworks.

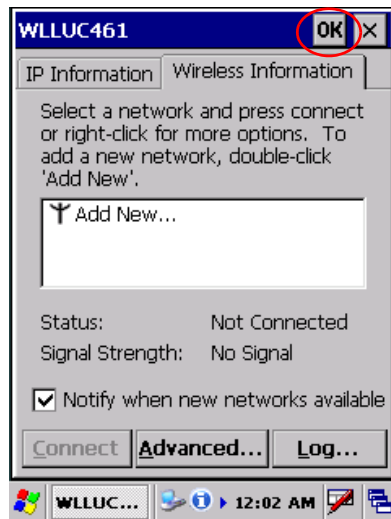
Stage 4: Setting up the Peer-to-Peer Network on the Myomonitor

Before proceeding in this document, please make sure the previous steps have been completed:

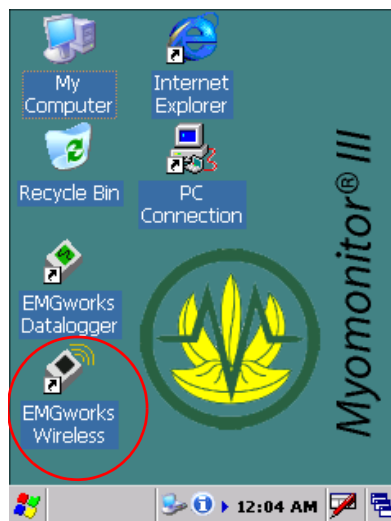
- Stage 1: the Wireless adapter has been successfully installed on your host computer and that the status LED on the front of the adapter is lit.
- Stage 2: a Peer-to-Peer Network called “Myomonitor” has been successfully created on the PC.
- Stage 3: The Host within the Peer-to-Peer Network has been identified.

IMPORATANT: Ensure that EMGworks has been successfully installed on the host computer.

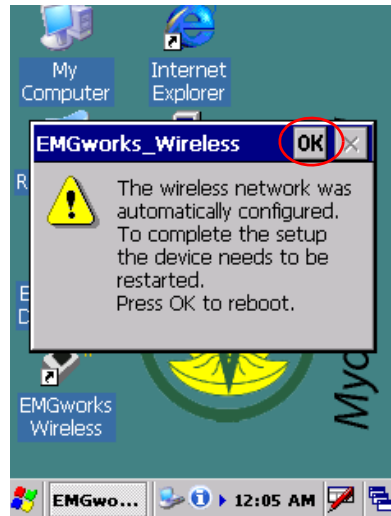
1. Start the Myomonitor.
2. The Wireless Configuration dialog automatically launches when the device is first started. Close the dialog by tapping “OK” in the top right corner.



3. Start the “EMGworks Wireless” application by rapidly tapping the icon twice.



- The device will automatically configure the wireless network. After the network has been configured, the device needs to restart in order to complete the network configuration. Tap “OK” in the top-right corner of the dialog box to reboot the device. After the device has restarted, the EMGworks Wireless application will automatically launch.



- The device is now ready for wireless operation.



Stage 5: Getting Started with the Myomonitor III and EMGworks

Before starting

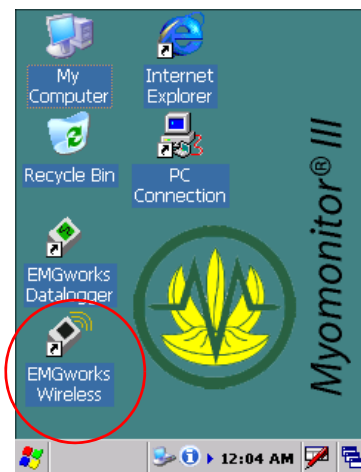
Before proceeding in this document, please make sure the previous steps have been completed:

- Stage 1: the Wireless adapter has been successfully installed on your host computer and the status LED on the front of the adapter is lit.
- Stage 2: a Peer-to-Peer Network called "Myomonitor" has been successfully created on the PC.
- Stage 3: The Host within the Peer-to-Peer Network has been identified.
- Stage 4: the Myomonitor III is turned on and connected to the "Myomonitor" Peer-to-Peer Network.

IMPORATANT: Ensure that EMGworks has been successfully installed on the host computer.

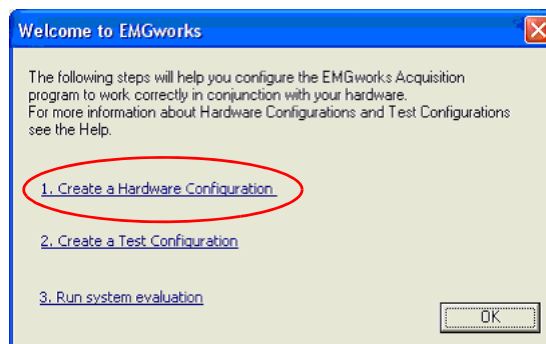
Starting EMGworks Wireless

To start the EMGworks Wireless application on the wearable computer, double tap the "EMGworks Wireless" application icon on the Myomonitor III desktop.



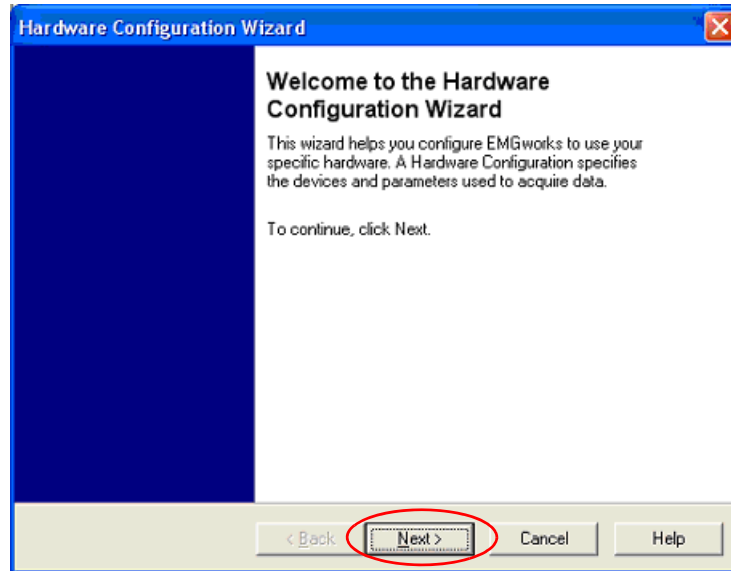
Getting started

Start EMGworks Acquisition on desktop or laptop PC by double-clicking the "EMGworks Acquisition" icon on the Windows desktop. The dialog box shown below will appear when EMGworks is run for the first time on a computer. Subsequent sessions of EMGworks will not show this window, but the three actions listed can be accessed from within the EMGworks menus at any time.

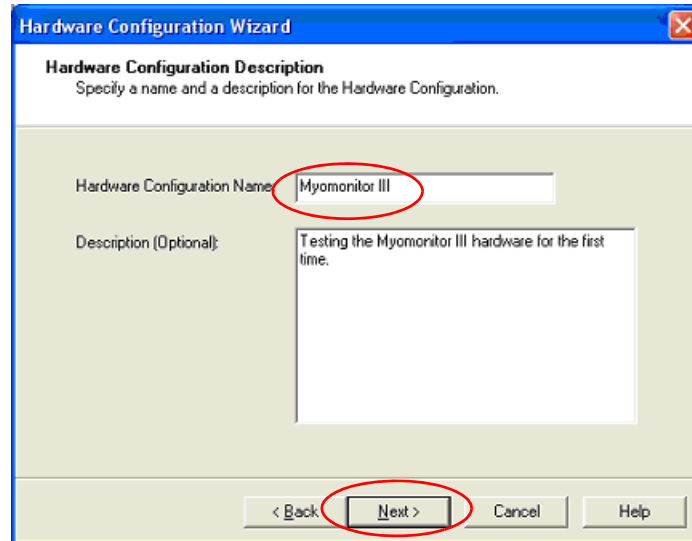


Creating a Hardware Configuration

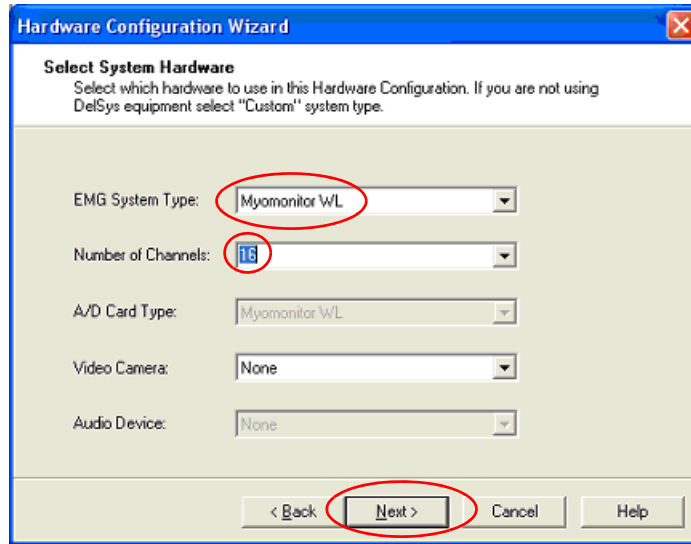
1. Access the "Create a Hardware Configuration" option either from the dialog box or from the "Tools" menu. This will start the "Create a Hardware Configuration" wizard. Click "Next" to continue.



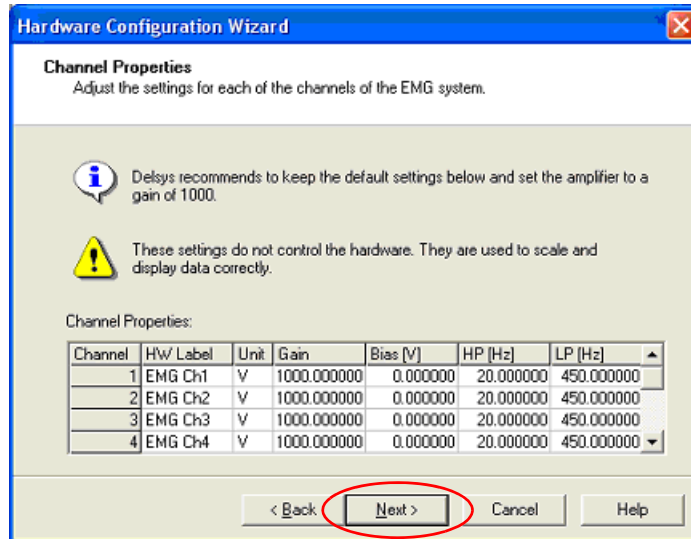
2. Enter the "Myomonitor III" in the "Hardware Configuration Name" field and an optional hardware description in the "Description" field. Click "Next" to continue.



3. Select "Myomonitor WL" from the "EMG System Type" drop-down box.
4. Select the number of channels supported by your system (8 or 16 channels). Click "Next" to continue.

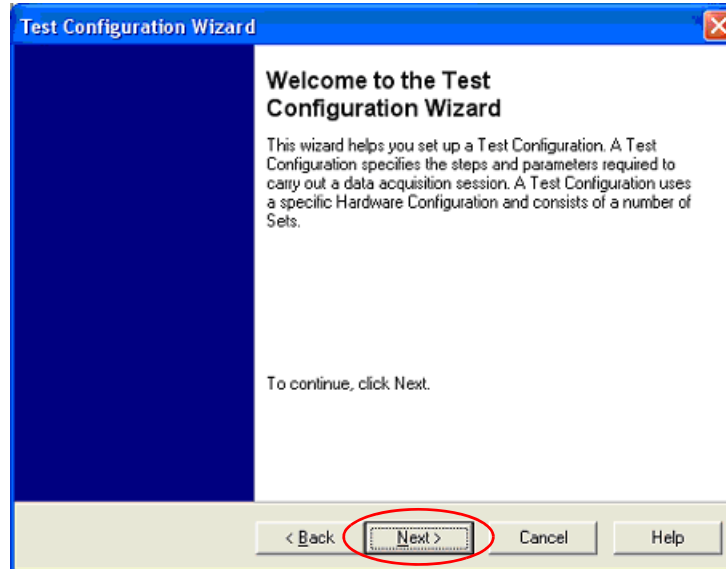


5. Keep the default channel properties settings that appear. Click "Next" and then "Finish" to close the wizard.

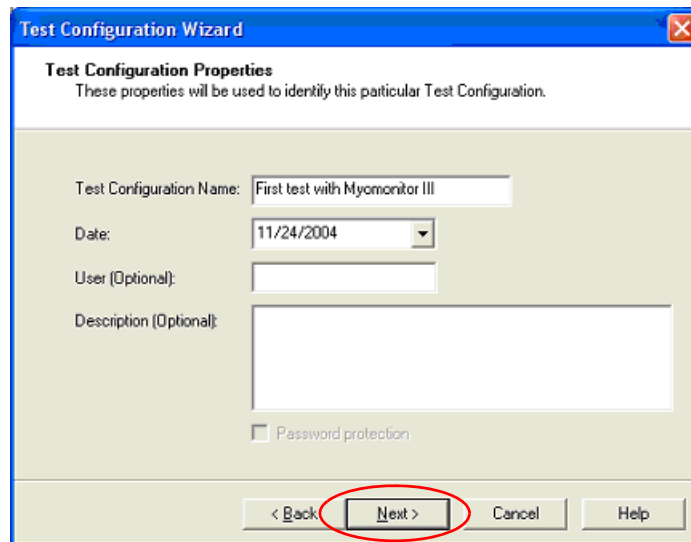


Creating a Test Configuration

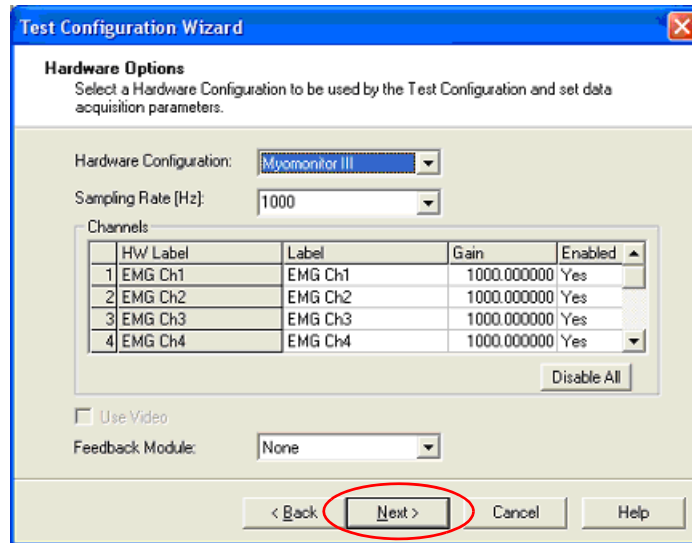
1. Access the "Create a Test Configuration" option either from the dialog box or from the "Tools" menu. This will start the "Create a Test Configuration" wizard. Click "Next" to continue.



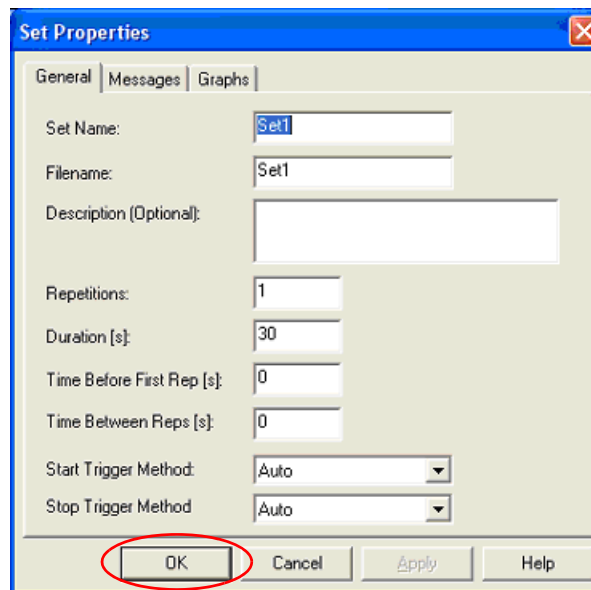
2. Enter "First test with Myomonitor III" in the "Test Configuration Name" field. Click "Next" to continue.



3. Make sure the hardware configuration “Myomonitor III” is selected in the drop-down box. Click "Next", "Next" and then “Next” again.



4. We will create a very simple test by accepting the default settings. Do this by clicking "OK". This will create a set with one repetition and a duration of 30 seconds.

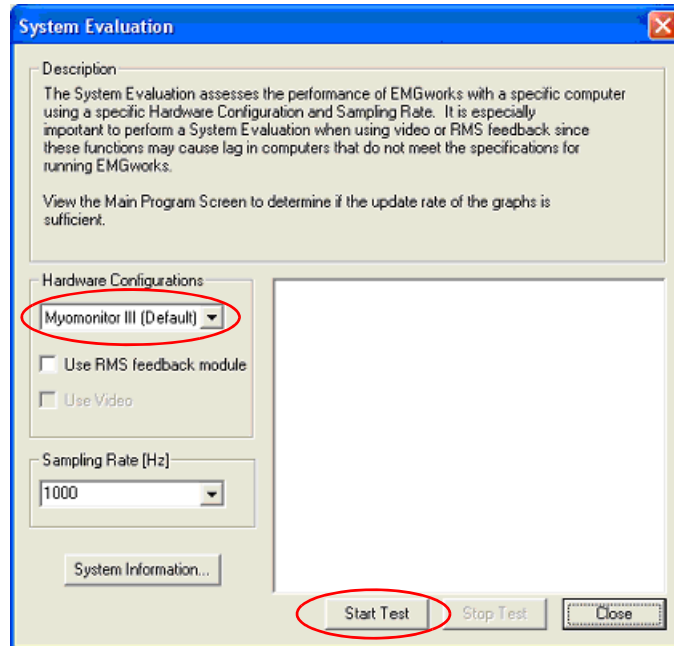


5. Click "Next" and then "Finish" to exit the wizard.

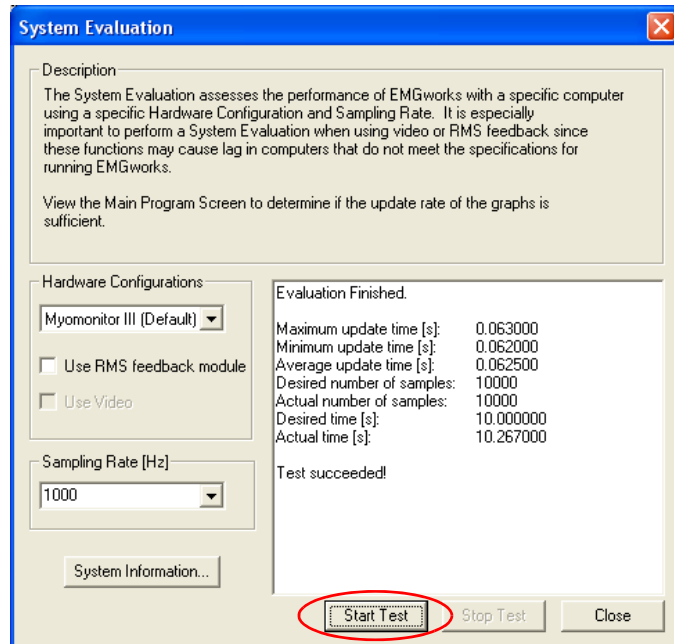
Running the system evaluation test

The EMGworks Acquisition can perform a system evaluation test. This is to assure the system is powerful enough to correctly transport data and update the screen at a satisfying rate.

1. Access the "System Evaluation" option either from the dialog box or from the "Tools" menu. Select the previously created hardware configuration from the "Hardware Configurations" drop down menu.



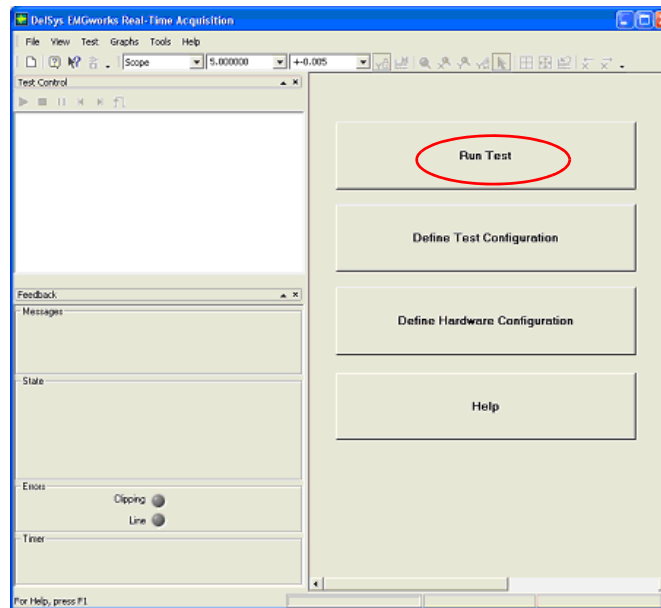
2. Make sure "EMGworks Wireless" has been started on the Myomonitor III and that it is trying to connect to the host computer. Press start test.



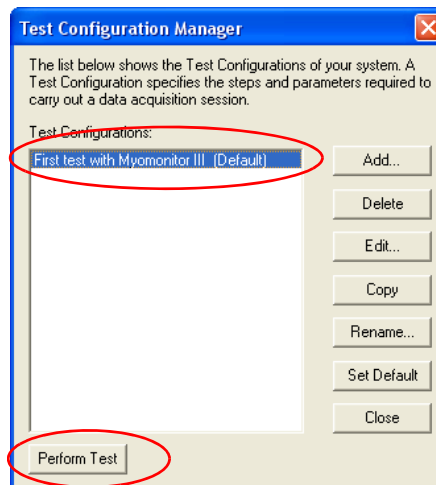
3. If the test succeeds, the computer is powerful enough to run a test using the specific hardware configuration. If the test did not succeed, try decreasing the number of channels used in the hardware configuration (refer to EMGworks 3.1 manual for a comprehensive description).
4. Close the System Evaluation Window by clicking "Close".

Running a Test

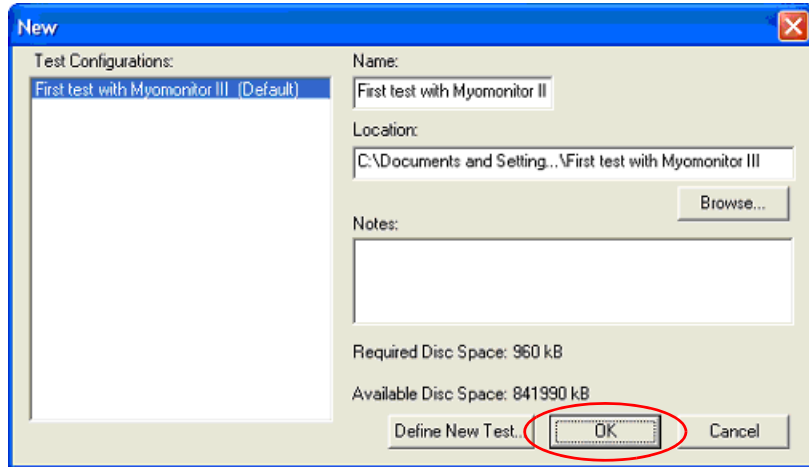
1. Close the "Welcome to EMGworks" dialog if open.
2. Click "Run test" in the main menu.



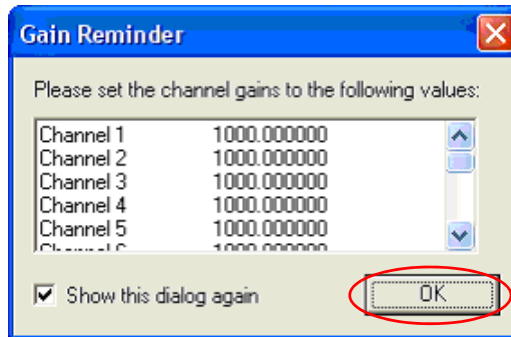
3. Select the newly created test and click "Perform Test".



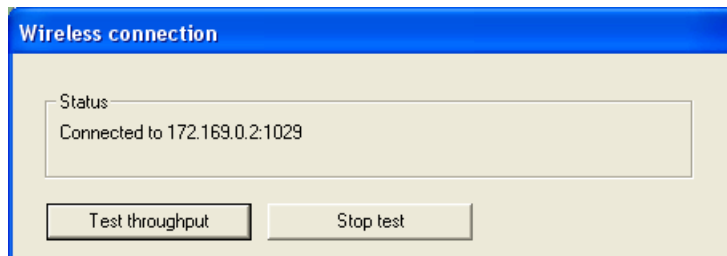
- The selected test's Main Page will appear. Click "OK" to continue.



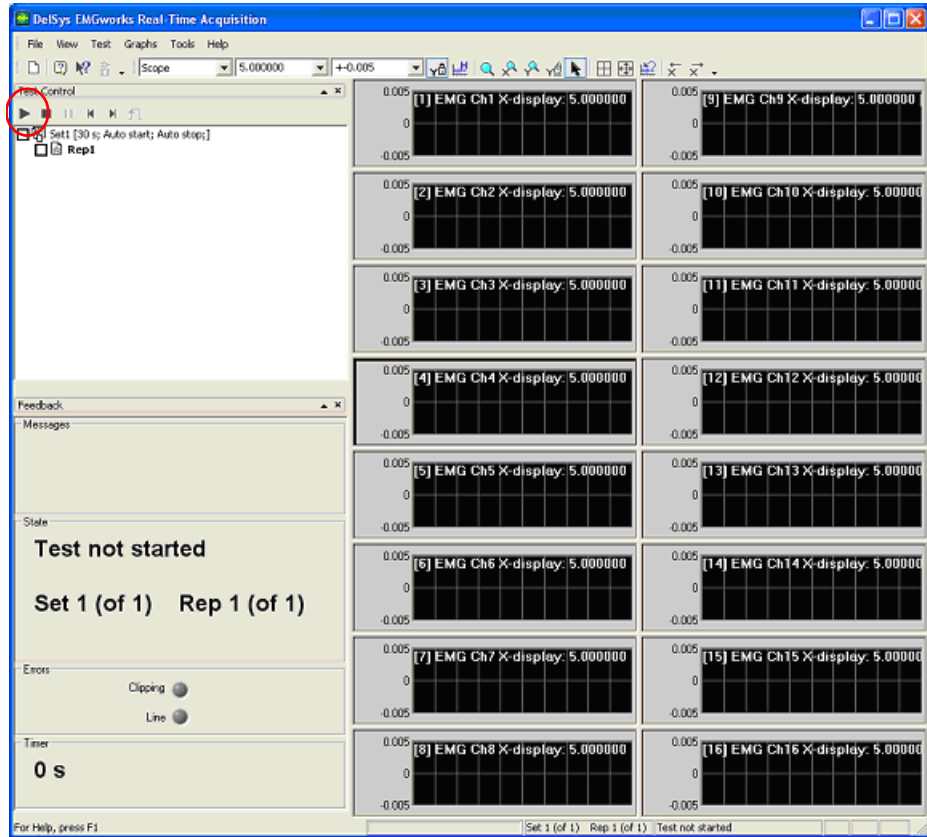
- A gain reminder will appear. Click "OK"



- Main data acquisition window should appear, along with a second new window, which should be visible in the system task bar. Select this new window, labelled "Wireless Connection" to display its content. This window contains information about the current status of the wireless connection. If a connection between EMG-works and the Myomonitor III has been successfully established, the "Wireless connection" dialog should say "Connected to 172.16.0.2:xxxx". This indicates that the system is ready. If the Status does not show a valid connection, then you must review the previous steps before continuing.



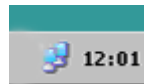
7. In order to start the test, click the "Play" button in the main screen. The system should start recording, transmitting and displaying data.



Troubleshooting a Network Connection

Q: How can I determine if the Myomonitor III and EMGworks are connected?

A: A valid wireless connection is denoted by 2 blue computer icons appearing in the task bar of the Windows computer and the Myomonitor wearable computer. An unsuccessful connection shows these two computer icons crossed out with a red “X”:



Connected



Not connected

Q: What could be preventing a valid connection?

A: The Myomonitor III and the host computer may fail to connect for several reasons:

- Has the correct network been selected in the network setup dialog on the Myomonitor III? Double tap the network icon in the task bar and verify that “Myomonitor” has been selected and is the only “preferred network”.
- Was the correct network key entered when setting up the network? Make sure both the host computer and the Myomonitor III use the same network key. NOTE: If letters are used in the network key, please note that the letter case matters. ‘A’ and ‘a’ are treated as two different characters.
- Is the Myomonitor III out of range? Make sure the Myomonitor III is close enough to the Wireless Adapter to allow for reliable data transmission.

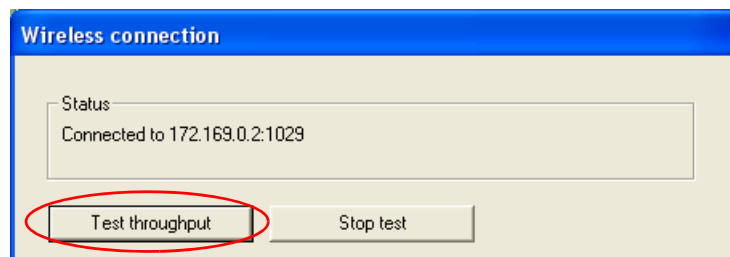
Q: The Myomonitor III is connected to the host computer but the test does not start when the “play” recording control is pressed.

A: Does the host computer have multiple Network Interfaces? Having multiple Network Interfaces on the host computer might induce data routing errors. This can be verified by disabling all other Network Interfaces but the Wireless Adapter that was supplied with the Myomonitor in the Windows’ Control Panel. Note that many computers have built-in Network Interfaces which may unknowingly be active.

Q: The test starts when the “play” recording control is pressed but is aborted before completed.

A: This error can occur when the Myomonitor III has a connection to the host computer but it is too weak to stream data at the desired rate.

- Open the “Wireless connection” dialog and press “Test throughput”:



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- If the throughput is very low (< 100KB/s) or rapidly changes try adjusting the location of the Wireless Adapter with respect to the location of the Myomonitor III.
 - Try lowering the sample rate in the test setup (if possible). This reduces the processing power needed on the host computer and can make a significant difference on older systems.

Q: EMGworks Acquisition displays “Error in Config”.

A: This error occurs when EMGworks Acquisition failed to remotely configure the Myomonitor III OR a throughput test was running when the “play” recording control was pressed.

- Make sure a throughput test is not in progress by opening the “Wireless connection” dialog and click “Stop test”.
- Make sure the network exists, the Myomonitor III has connected properly and that the data is routed correctly. See above.

Technical Support

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