
MDT for OSX Instructions

November 2, 2016

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Introduction to MDT

NeuroSky's **Mind Developer Tools** (hereafter abbreviated **MDT** or **Developer Tools**) are a set of software tools that make it easy to create innovative applications that respond to a user's brainwaves and mental state.

If you already have a NeuroSky headset (such as **MindWave Mobile**), you are already able to take full advantage of it with our Developer Tools. If you are trying out the Developer Tools before purchasing a headset, thank you for reviewing the toolset. However, please note that a NeuroSky headset will be needed when you are developing your own app using the Developer Tools. The headset is available on Amazon store: <http://www.amazon.com/NeuroSky-MindWave-Mobile-BrainWave-Starter/dp/B00B8BF4EM> .

If you have any questions, let us know at support@neurosky.com.

How to Use MDT for OSX

(For the purposes of this document, we will loosely use the terms “**Mac**” and “**OSX**” interchangeably throughout.)

The **MDT for OSX** allows you to develop brainwave-aware software applications that will run on OSX systems.

The **MDT** consists of 3 parts, each with their own **README** and **Development Guide** to walk you through the learning process. You should choose your starting point based on what you are trying to do, and proceed to its **Development Guide** (for example, to start with the Stream SDK, read the **Stream SDK for Mac Development Guide.pdf**):

If you would like to start by simply trying to connect to a headset and receive basic brainwave data from it, you will want to start with either the **Stream SDK for Mac**, or the **ThinkGear Connector (TGC)**:

- If you are using a language or platform that can use OSX Framework libraries, and have permission to access system serial COM ports, then start from the **Stream SDK for Mac**.
- If your preferred language or platform cannot use OSX Framework libraries, or does not have permission to access system serial COM ports (such as Flash), then start from the **ThinkGear Connector (TGC)**.

However, if you are already familiar with connecting to the headset and receiving brainwave data from it, or perhaps you are just impatient and want to jump ahead to start learning about and working with the advanced brainwave data types, then you can start from the **EEG Algorithms SDK**. It quickly glosses over the bits about connecting and receiving data (with a brief sample code), and dives into full detail about all the different advanced data types that are available, and how to calculate and use them. If necessary, you can always step back to the **Stream SDK** or **ThinkGear Connector** if you find yourself running into trouble with connecting to the headset and receiving its data.

MDT Contents

(For further details about each package listed below, please look at the documentation within the package.)

- **EULA.pdf** - End User License Agreement
- **MDT_OSX_Instruction.pdf** - this document.
- **Stream SDK for Mac** - used to help connect your application to a NeuroSky headset via serial ports on your computer (which are, ostensibly, connected via your computer's Bluetooth drivers to a NeuroSky headset), and receive data from the headset.
- **ThinkGear Connector (TGC)** - a software program, analogous to a socket server, that runs as a background process on your computer and is responsible for directing data from the serial port connected to a NeuroSky ThinkGear-enabled headset, to an open TCP/IP network socket on the computer. TGC is available for both Windows and OSX. Any language or framework that contains a socket library should be able to communicate with the TGC, according to its socket API. TGC is an ideal option for developers working in frameworks like Adobe Flash or web-based applications, which may have difficulty accessing serial COM ports directly, or using .dlls directly.
- **EEG Algorithms SDK** - used to further analyze and interpret the data that is received from a NeuroSky headset or TGAM module.
- **Application Standards** - at some point during your app development, you will want to review the contents in here, for tips on how to design your app's UI to take advantage of common standards and visual cues that will make your users quickly comfortable with the brainwave technology.

References and Bug reports

You can get the latest developer information from here:

<http://developer.neurosky.com/>

Learn about NeuroSky's EEG Data Types here:

http://developer.neurosky.com/docs/doku.php?id=thinkgear_communications_protocol

You may find some additional useful information in the Knowledge Base:

<http://support.neurosky.com/kb>

If you find any bugs, please contact us at:

support@neurosky.com