

NeuroNexus Radiens Allego Software User Guide

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Introduction

Congratulations on your purchase of Radiens Allego software!

This advanced software from NeuroNexus enables mapping of neural, cardiac, and muscle activity while viewing the spatial relationship between the recording sites on any probe. This software accelerates neuroscience research through its unique combination of performance, ease of use, and forward-looking advanced features, which include:

- Unique, highly interactive, probe- centric user interface that allows the researcher to remain focused on the experiment at hand
- Data curation and conversion compatible with Matlab and Python analyses

This "Quick Start Guide" is intended to provide a brief overview of the Allego software and some of its basic functions

IMPORTANT: Please check the NeuroNexus web site at www.NeuroNexus.com for new software releases and accompanying updates to this document.

For questions regarding the software, please email us at support@NeuroNexus.com. You can also call us at +1.734.913.8858.

Download and Install the Allego Software Application

Allego is the application used to interface with the SmartBox Pro and other Intan based acquisition systems, and can be used to review, visualize, and curate previously recorded data. The latest version of Allego can always be found on the downloads page:

https://neuronexus.com/products/neuronexus-neuroanalytics platform/allego/allego-downloadpage

Once there, select the link for the appropriate operating system and then select "Download" to begin the transfer.

Windows

Launch the installer.

If you receive a warning against running an unrecognized app, select "More Info", then "Run anyway."

Allego will launch after the installation is complete.

macOS

Download the Allego installer.

Double-click the installer to launch.

Drag the Allego icon into the Applications folder.

Open the Applications folder by double clicking the folder icon.

In the Applications folder, double-click the Allego icon while holding down the control key (holding down the control key overrides the MacOS security check, which is only needed during the initial launch).

Allego will launch after the installation is complete.

Networking and Security

Allego requires ports 50051-50054 to be open for licensing to function properly. Please contact your institution's IT department to assist with this.

Allego Interface

Allego Dashboard

Cf	CONFIGURATION	
; IIII 001 /I \	System	Configure signal sources, which ports will be used, sampling frequency, and D/ A (Outs).
	Electrodes	Connected probe designs are selected, along with which port and head- sta ge will be used.
7	Signal Processing	Create various filter types and combine them to create DSP groupings.
SC	SIGNAL PROCESSING	
	Monitor	Show s the signals currently being streamed.
Z	Impedance	Impedance testing.
Vs	VISUALIZATION	
O	HD Snapshot	Takes a high resolution still picture of signals for closer inspection.
1	Signal Metrics	Configure spike detection parameters and view key performance indicators/ signal quality characteristics.
	Spike Grid	Set spike detection threshold using voltage or standard deviation of back- gr ound noise from the mean. Displays detected spikes across all channels.
*	Settings	Activate the software, set visual themes and set the recording file name and location.

Activating Allego

• Launch Allego. Once it has finished initializing and the progress bar disappears, navigate to the left side of the interface and hit the Settings button



- Acquisition Settings in the upper-right lists the directory where your recording files will be saved, as well as the root file name of each file
- License Status displays the current state of your software activation
- If the status is inactive, unknown or expired, you may:
- 1. Click the "REQUEST TRIAL" button. This will grant a 14-day trial license.
- Check the emails you have received from NeuroNexus for an 18-digit license key. If you do not have this yet, contact NeuroNexus Customer Service (<u>support@NeuroNexus.com</u>) to request a license key. Paste the 18-digit key into the text box labeled "Activate" and click the arrow.
- If this is a trial system, activation will extend the license and unlock other parts of the application
- Accept the End User License Agreement to begin using Allego
- Your license key allows two computers to run Allego simultaneously. If you need to activate Allego on a
 different computer, you may deactivate the license on one by choosing the Deactivate button. This removes the
 current computer from the allowed list, freeing up the seat to be use with another computer instead.
- If your software has been activated but appears inactive, unknown or expired, click the REFRESH button to reattempt to activate. If this does not work, check your internet connection.



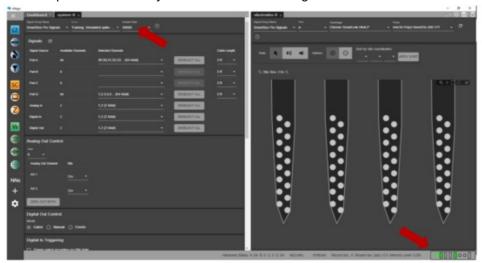
Checking Hardware Connection

Navigate to the Dashboard and hit the System button. With the SmartBox Pro on and connected to headstages,

your software recognize connected headstages automatically. If you are using a different Intan-based system, click on the Mode menu and select the appropriate option.

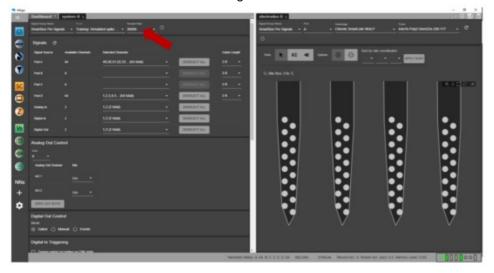
On the right side of the bottom bar in the System tab, you can check the status of connected ports to the headstages. Green light indicates which ports are in use. For example, below shows the status of two 64 channel headstages connected to ports A, and D

The sample rate on the System view can be changed to values between 1 kHz to 30 kHz.

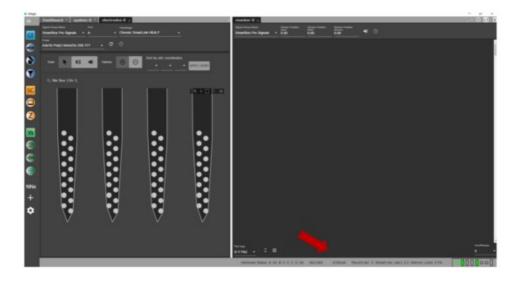


Training with Allego

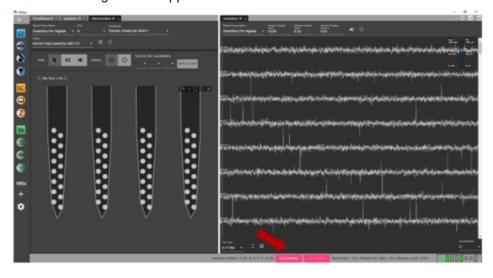
To familiarize yourself with Allego, return to the Dashboard and select the System icon if the tab is not still open. From the Mode dropdown menu, choose Training: Simulated spike data. This mode simulates having a 64 channel headstage connected on Ports A and D. You may also test filtering options by choosing Training: Sine waves. Sine mode simulates a 64 channel headstage connected on Ports A and C.



Quick streaming and saving - Determine if a headstage and probe are connected properly and can stream data



- From the Dashboard, click the Monitor icon
- · Choose a name for this monitor if desired
- Click Stream. Data should begin to populate the window.
 - a. If it does not, navigate to the System view to verify that the data acquisition system detects your headstage(s)
 - b. You might need to scale the streaming to display the waveforms appropriately. On the bottom of Monitor view, click the Vertical Controls button to increase/- decrease the time span, the space between your waveforms, and the magnitude or resolution of your signals.
- From the Signal Processing tab of the Dashboard, apply a filter set that is suited for your research. For more information about the filtering, refer to technical document.
- To save streamed data, click Record. The streaming and recording status will be displayed in the Status bar visible all throughout the application.







NeuroNexus Radiens Allego Software [pdf] User Guide Radiens Allego Software, Radiens Allego, Software

References

• <u>NeuroNexus</u>

Manuals+,