OSP Quick Start Guide - Release 2020B

OSP Installation Steps

1. Check that you meet installation requirements.

Mac computer with a browser and terminal.

Audio device (either an external headset or computer mic and speakers)

At least about 800 MB of storage space

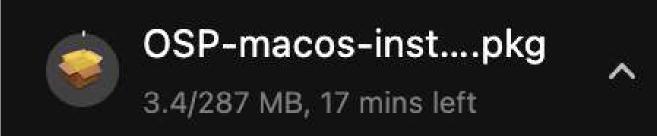
2. Click on the link to the Google Drive "Releases" folder to find the downloadable .pkg file.

https://drive.google.com/drive/folders/1Njt wBNzf2SkYOxKLAYshZf0nhyLz3Y0z?usp=s haring

Alternatively, copy and paste the above URL into your browser and press enter. The .pkg file should have a name called "OSP-macosinstaller-x64-(version number).pkg".

3. Save the .pkg file, wait for download to finish.

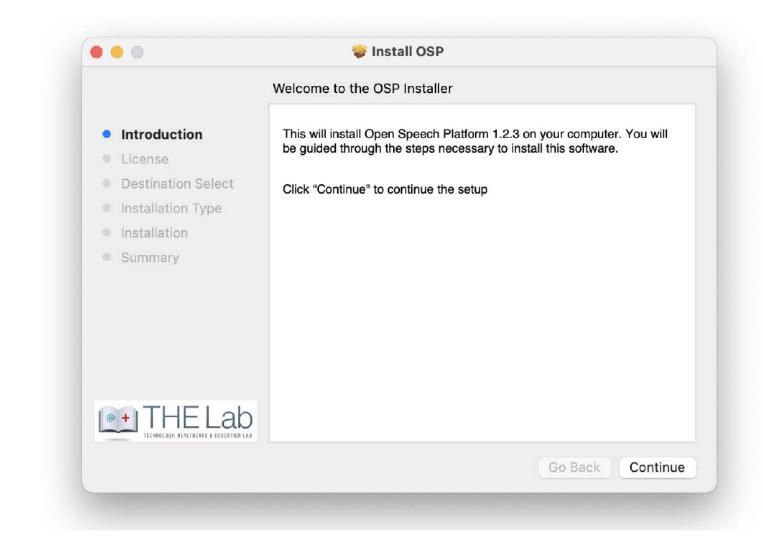
Time will vary depending on download speeds.



Once you open the file, If you receive a message "OSP-macos-installer-x64-(version number).pkg cannot be opened because it is from an unidentified developer", see "Troubleshooting - Can't Open Installer Window".

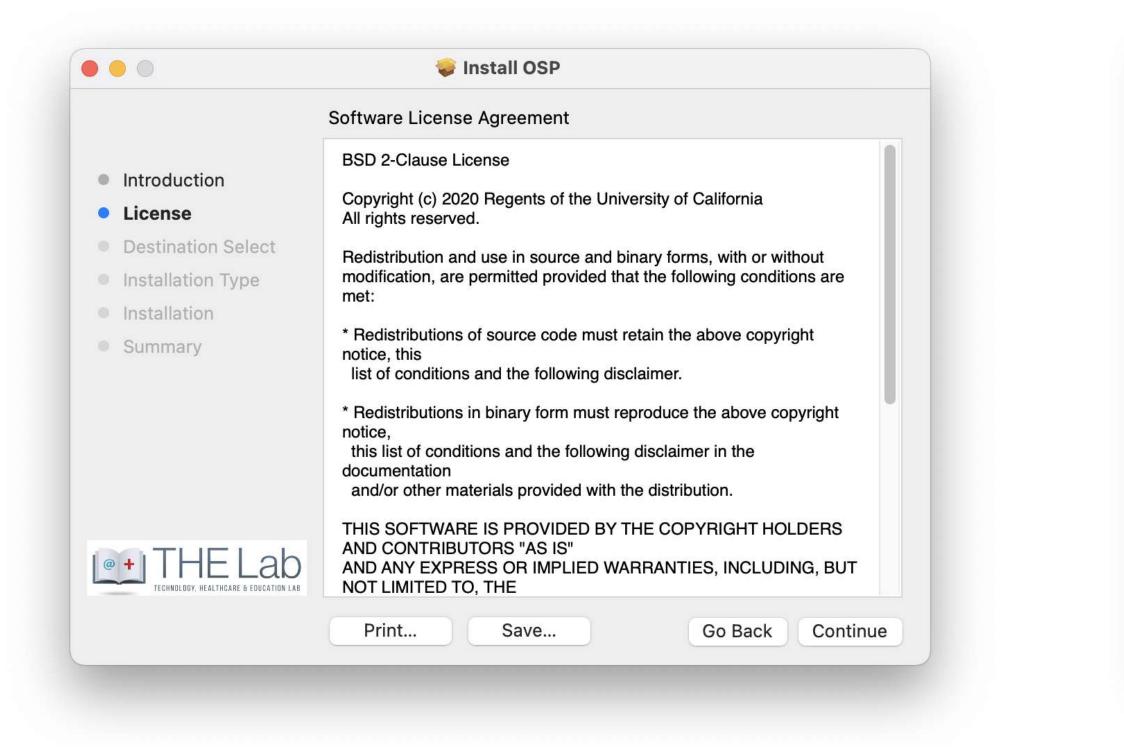
Otherwise, proceed to step 4.

4. You should see this installer window opened.

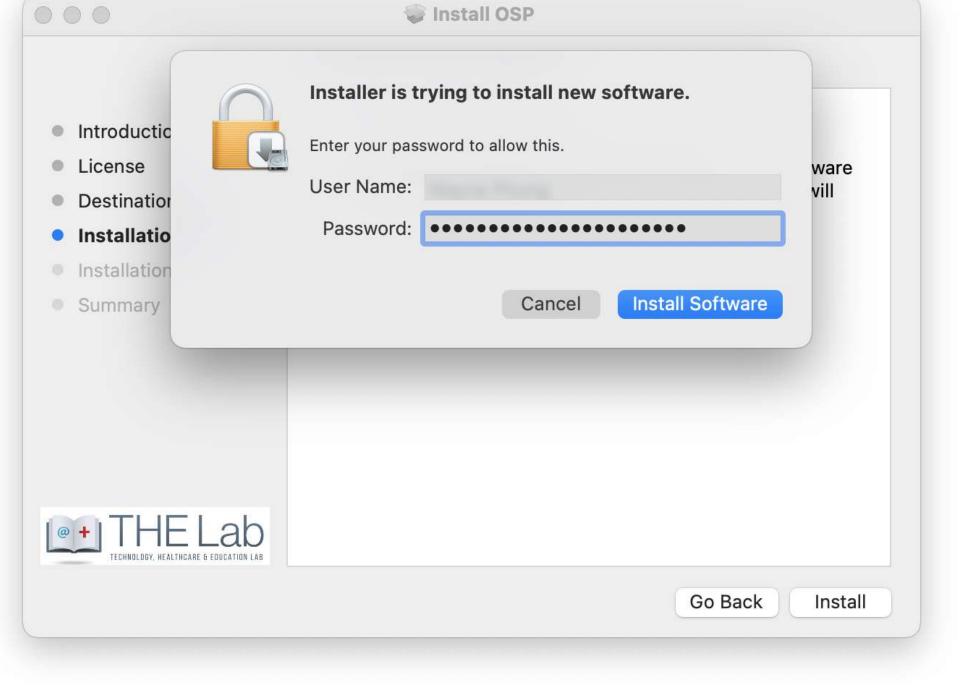


5. Follow the installation instructions.

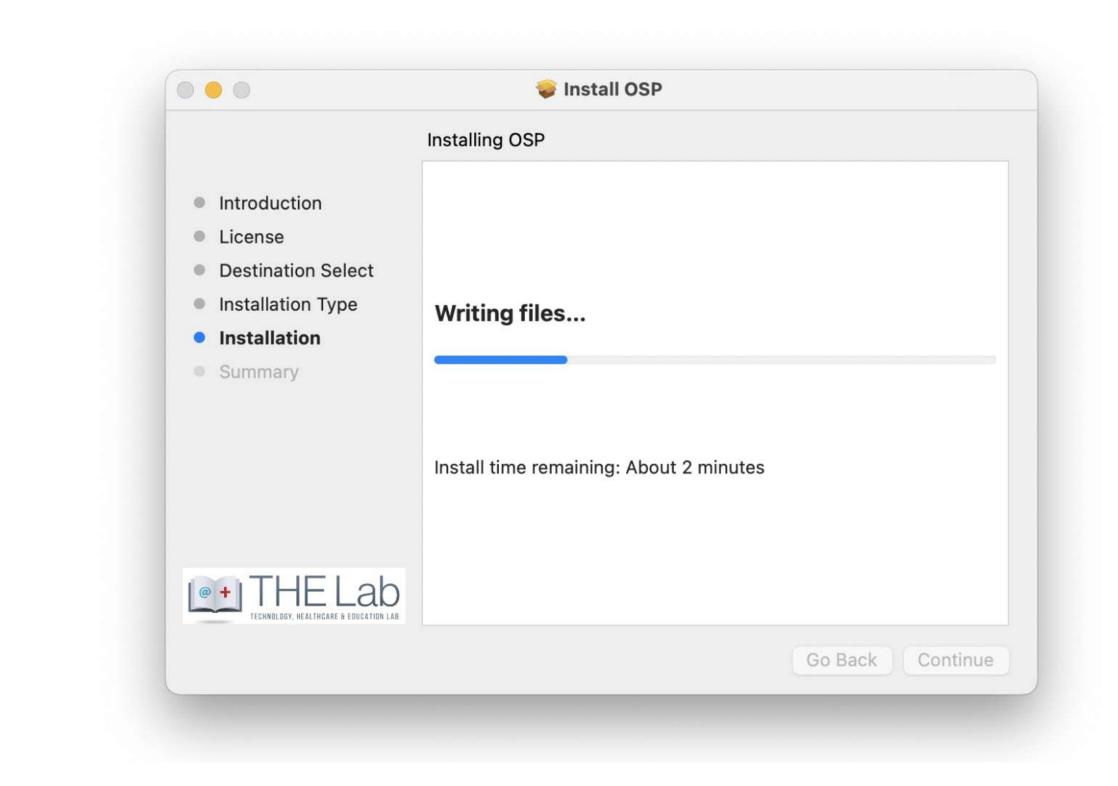
5a. Agree to the Software License Agreement.



5b. Enter your password used to sign in to your computer to continue the installation.



5c. Wait for the installation to complete. Time will vary.



6. After installation is complete, open a new terminal and enter

7. At this point, OSP and EWS should be running.

You would be automatically redirected to your browser.

(Optional) To access the PHP/Laravel version of EWS,

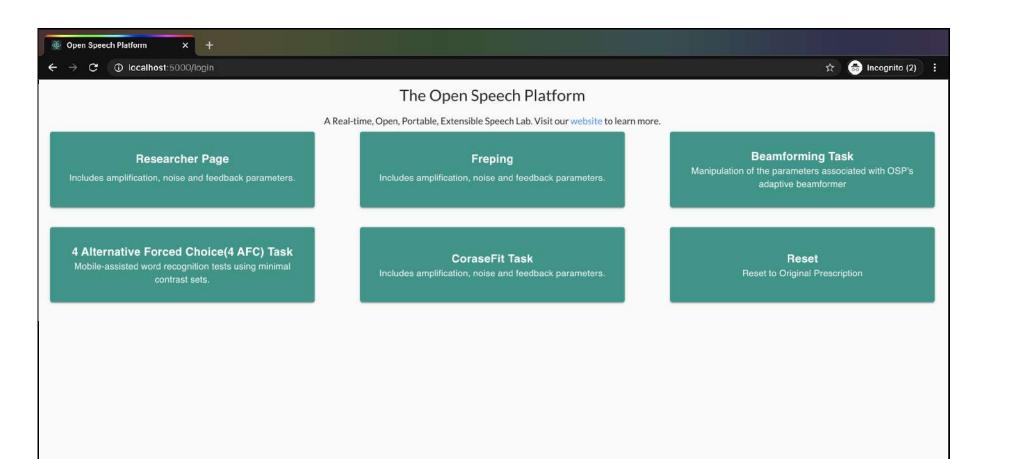
the command "run_osp".

You should see five terminal tabs automatically opened, running processes, and generating messages.

If you don't see these tabs and/or get an error message ""execution error": Not authorized to send Apple events…", see "**Troubleshooting - Terminal Tabs Won't Open**".

•••	🔟 way	/nephung — -bash — 8	30×24		
\sim — -bash	~ — osp_cli	~ — osp	tart-ews-php	start-ews	+
Last login: Mon [Dec 7 13:05:07 o	n ttys004			
You have new mail	ι.				
The default inter	ractive shell is	now zsh.			
To update your ad	ccount to use zsh	, please run `ch	nsh -s /bin/zsh`.		
For more details,	, please visit ht	tps://support.ap	ple.com/kb/HT208	050.	
MacBook-Pro:~ way	/nephung\$ run_osp]
Setting OSP_MEDI	A to /Library/OSP	/1.2.3/release/m	nedia		
Running all proce	esses in Terminal	tabs.			
	ution error: Not	authorized to se	end Apple events.		
Then you must got					
	s -> Security & P		cy -> Automation		
	rminal/System Eve	nts checkbox.			
You might also ne					
	s -> Security & P	rivacy -> Privad	cy -> Accessibili	ty	
and check the Ter	rminal box				
Warning: closing	tabs may not sto	p the running pr	ocess.		
1	4 442204				
tab 1 of window i					
tab 1 of window i					
tab 1 of window i	ld 113388				

There, you will immediately see the landing page for Node.js version of EWS (URL should be "**localhost:5000**/login").



enter "**localhost:8080**" in your browser search bar. The landing page should look like the following.

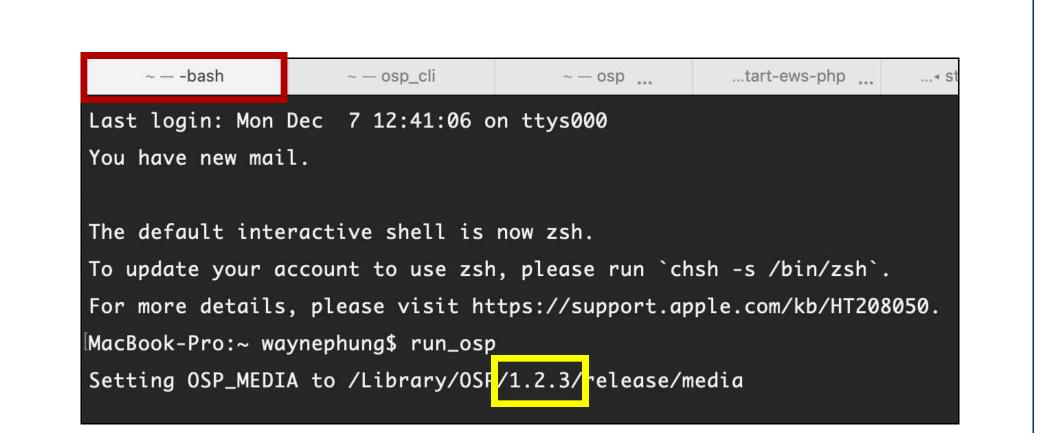
Includes amplification, noise and feedback parameters.	Includes a 4AFC Task webapp in which an end user can play a sound on click and select a response from 4 options.	Includes researcher interface and end user interface
Ecological Momentary Assessment (EMA)	AB Tasks 🖛	Go to our website
Includes an EMA webapp, using which an end user can respond to a prompted question or set of questions.	Includes an AB Task webapp, using which an end user can select a relationship between two presented stimuli, A and B, evaluated on a 7 point likert scale.	This is a link to the Open Speech Platform website!
Calibration		
Calibrate the MHA device using measured values.		



1. Go to your terminal and enter the command "sudo bash /Library/OSP/1.2.3/uninstall.sh", enter your computer sign-in password. If you have a different version installed, simply replace "1.2.3" with the version number that you installed.

MacBook-Pro:~ waynephung\$ sudo bash /Library/OSP/1.2.3/uninstall.sh Password:

To find the version number, simply enter "**run_osp**" to launch OSP, go to the "-bash" terminal tab, and find the "Setting OSP_MEDIA to /Library" message.



Setting OSP_MEDIA to /Library/OSP/1.2.3/release/media

2. You will be asked if you want to proceed uninstallation. To do so, type "y". to proceed uninstallation. You should see the following message that the uninstall process has been finished.

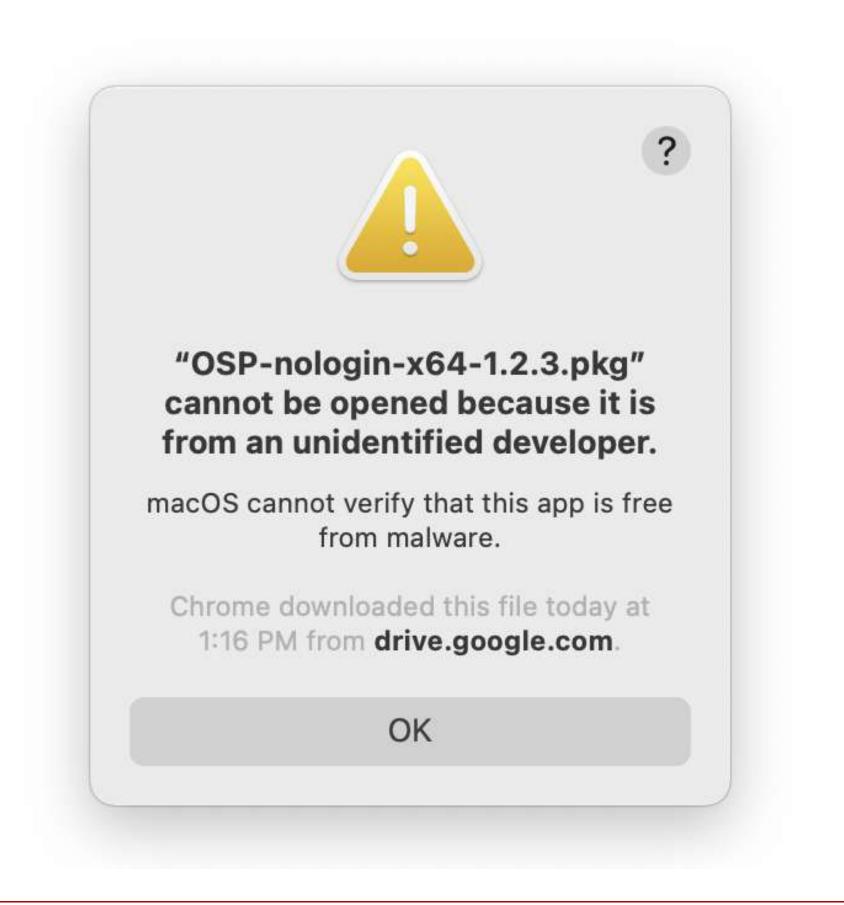
Welcome to Application Uninstaller The following packages will be REMOVED: OSP-1.2.3 Do you wish to continue [Y/n]?y

Application uninstalling process started
[1/3] [DONE] Successfully deleted shortcut links
[2/3] [DONE] Successfully deleted application informations
[3/3] [DONE] Successfully deleted application
Application uninstall process finished

Troubleshooting - Can't Open Installer Window

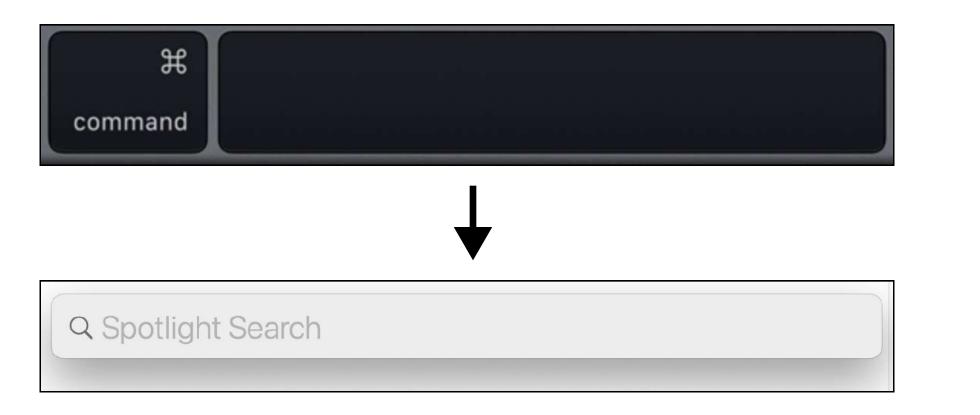
Refer to this section if you don't see the OSP installer window open, and instead see an "Unidentified Developer" message an in step 4 of the "OSP Installation Steps" section.

If you received the message, that means you need to change permissions on your computer to allow the installer to run.



1. Open System Preferences

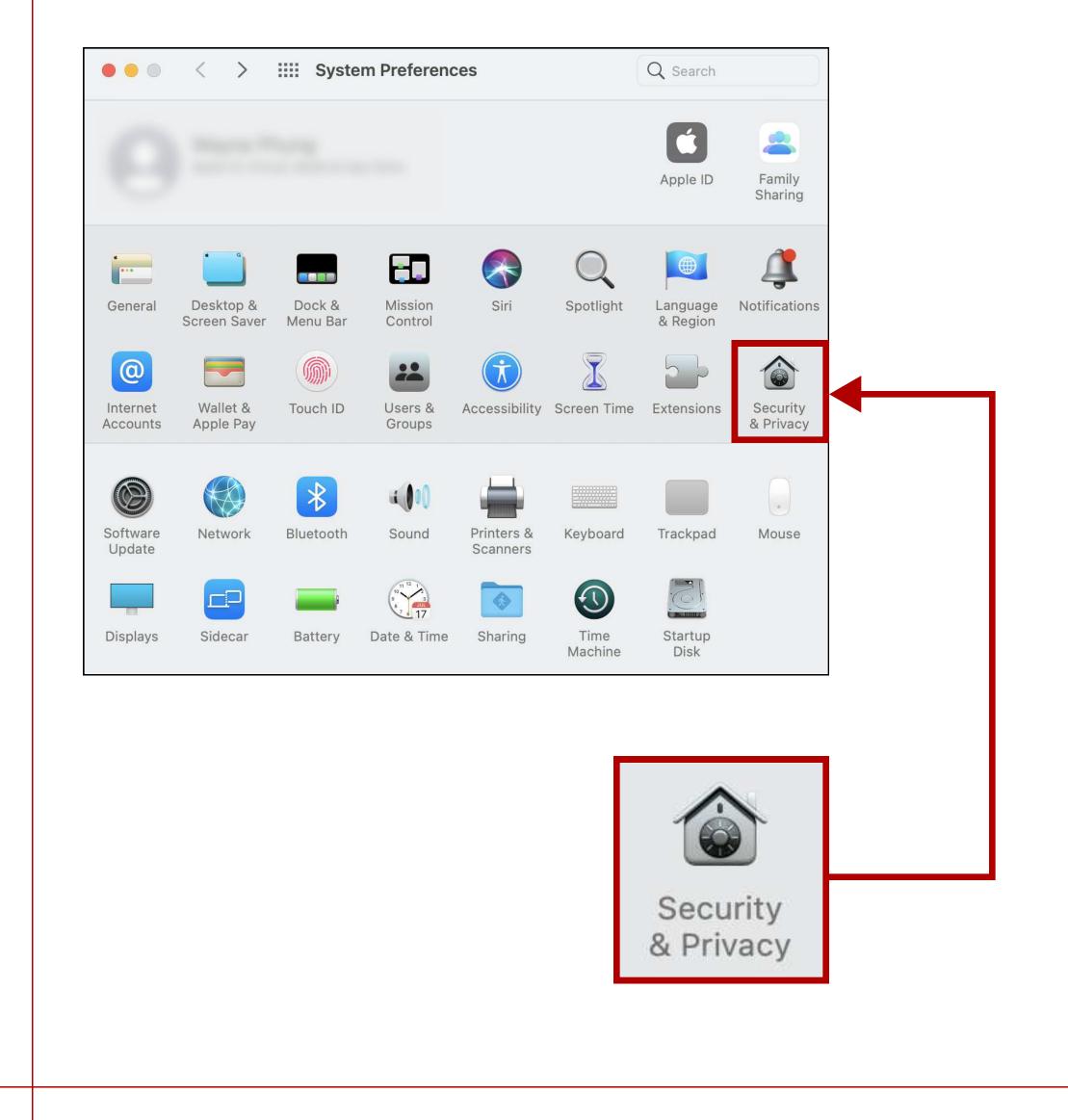
Press command + space to open Spotlight Search and start typing "system preferences".



The app name will be highlighted. Press enter.

Q system Preferences.app	
System Preferences.app	

2. Go to "Security and Privacy"



3. In the "General" tab, you should see the "unidentified developer" message here as well. Click the "Open Anyway" button.

5. You should see this installer

window opened.

General FileVault Firewall F	Privacy
A login password has been set for this user Change P	Password
✓ Require password 5 minutes	or screen saver begins
Show a message when the screen is locked Se	et Lock Message
Disable automatic login	
Allow apps downloaded from:	
 App Store App Store and identified developers 	
"OSP-nologin-x64-1.2.3.pkg" was blocked from use bec from an identified developer.	ause it is not Open Anyway

4. If you receive this popup, confirm by pressing the "Open" button.

		🥪 Install OSP
		Welcome to the OSP Installer
not verify the "OSP-nologin- Are you sure you open it?	 Introduction License Destination Select Installation Type Installation Summary 	This will install Open Speech Platform 1.2.3 on your computer. You will be guided through the steps necessary to install this software. Click "Continue" to continue the setup
you will be ity which can and personal hat may harm e your privacy.	THE Lak	
is file today at oogle.com.		Go Back Continue

Troubleshooting - Terminal Tabs Won't Open

Refer to this section if the five terminal tabs don't open when you enter the "run_osp" command during step 6 of "OSP Installation Steps".

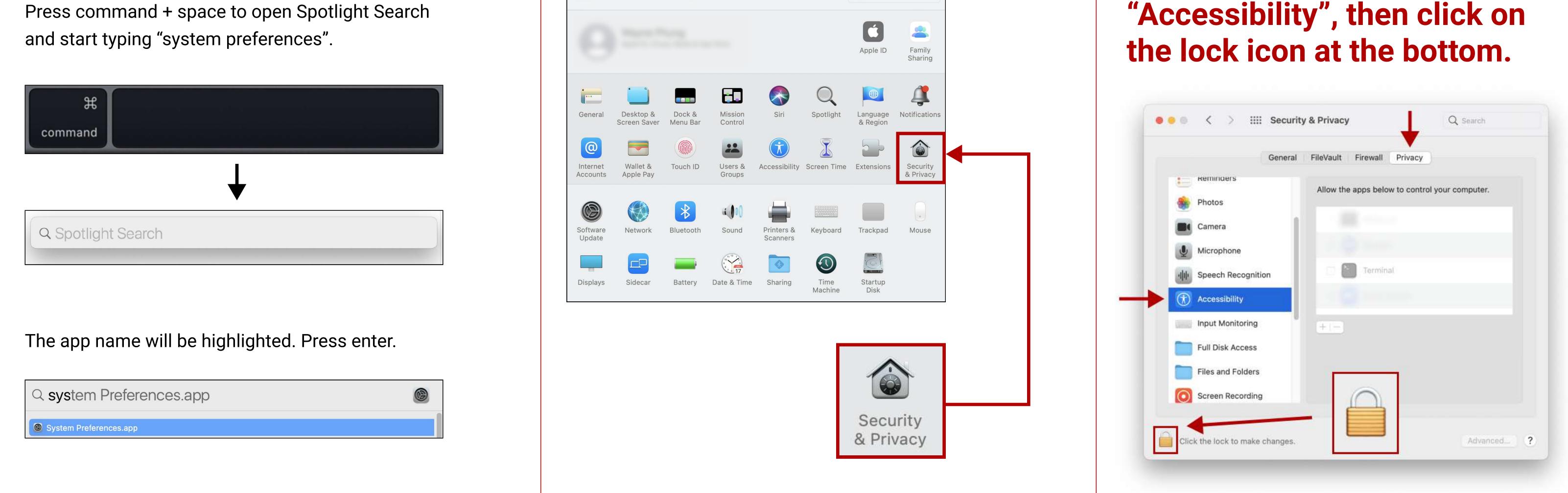
Q Search

1. Open System Preferences

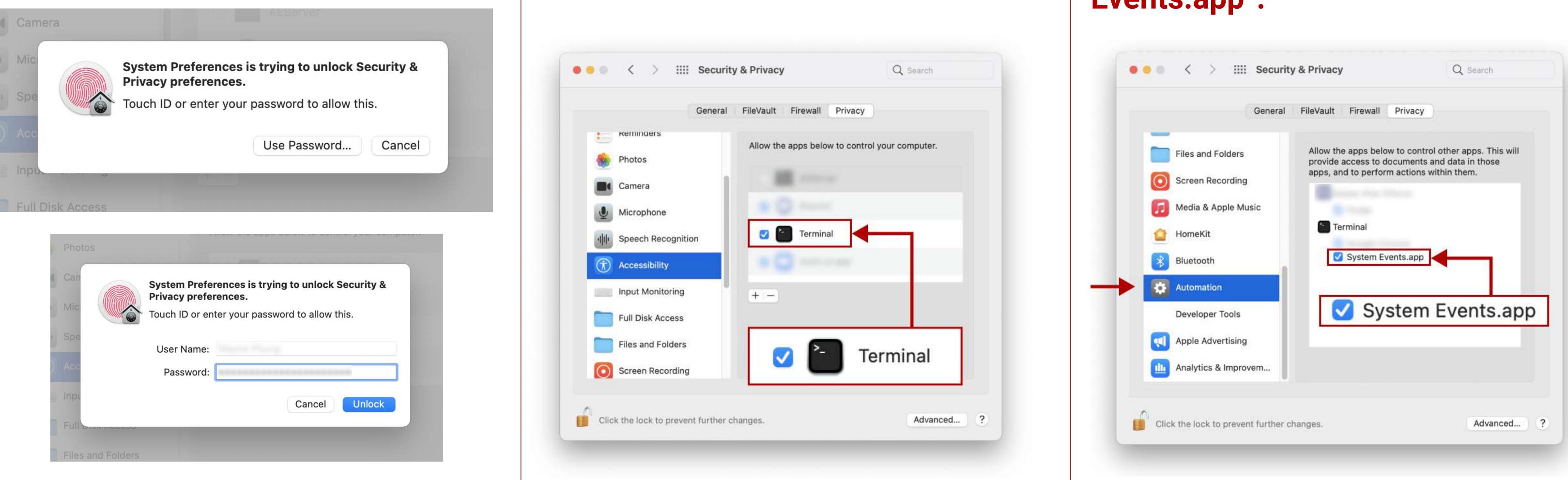
2. Go to "Security and Privacy"

3. Go to the "Privacy" Tab. On the left sidebar, scroll down to

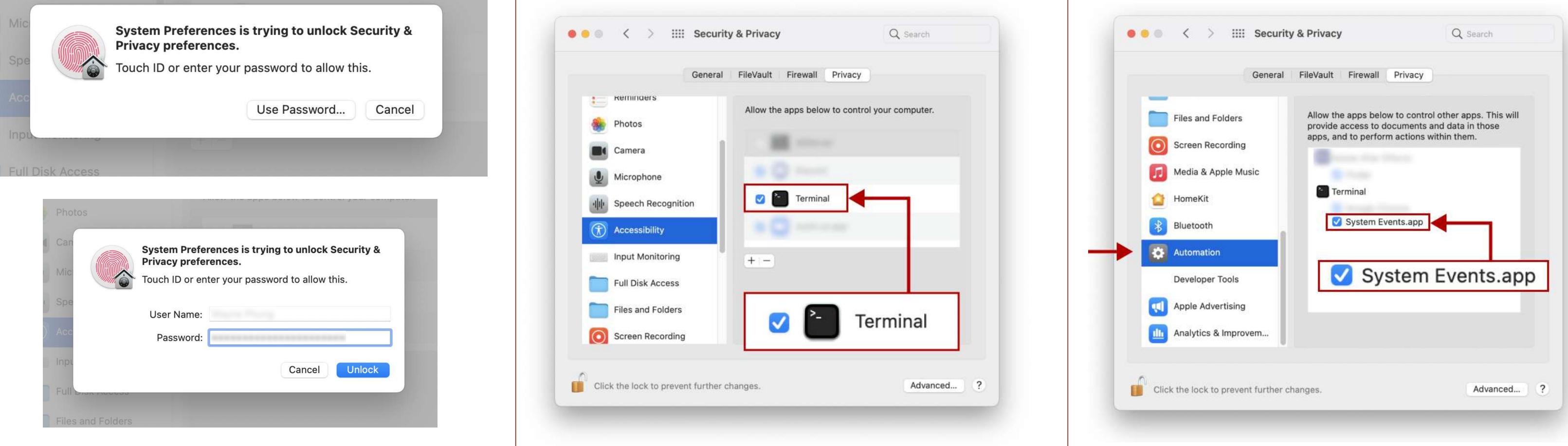
Press command + space to open Spotlight Search



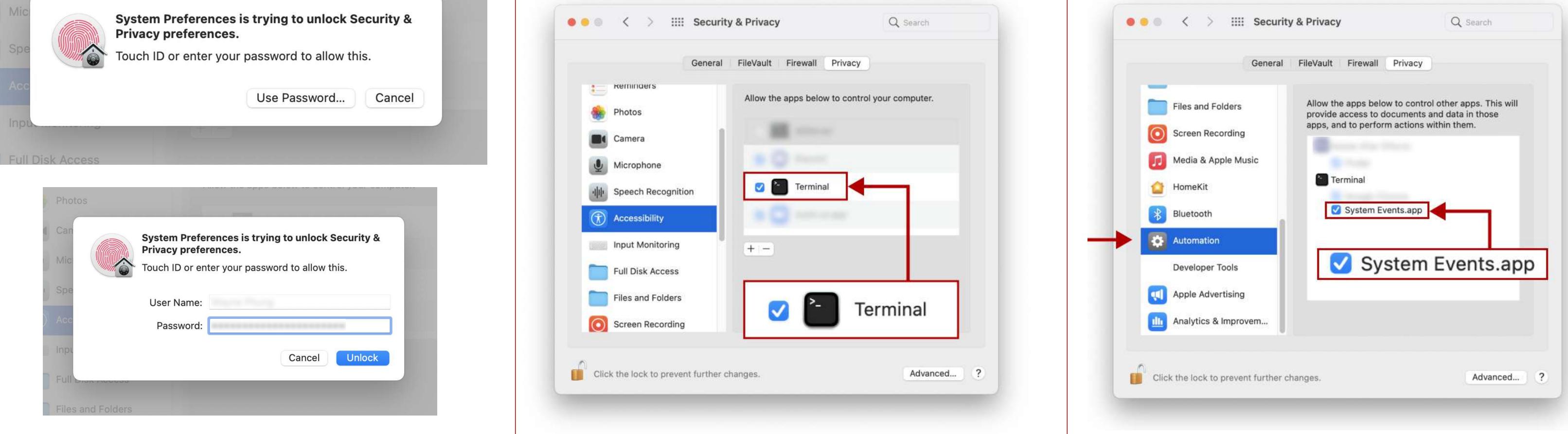
4. Use Touch ID or enter your password to unlock these settings.



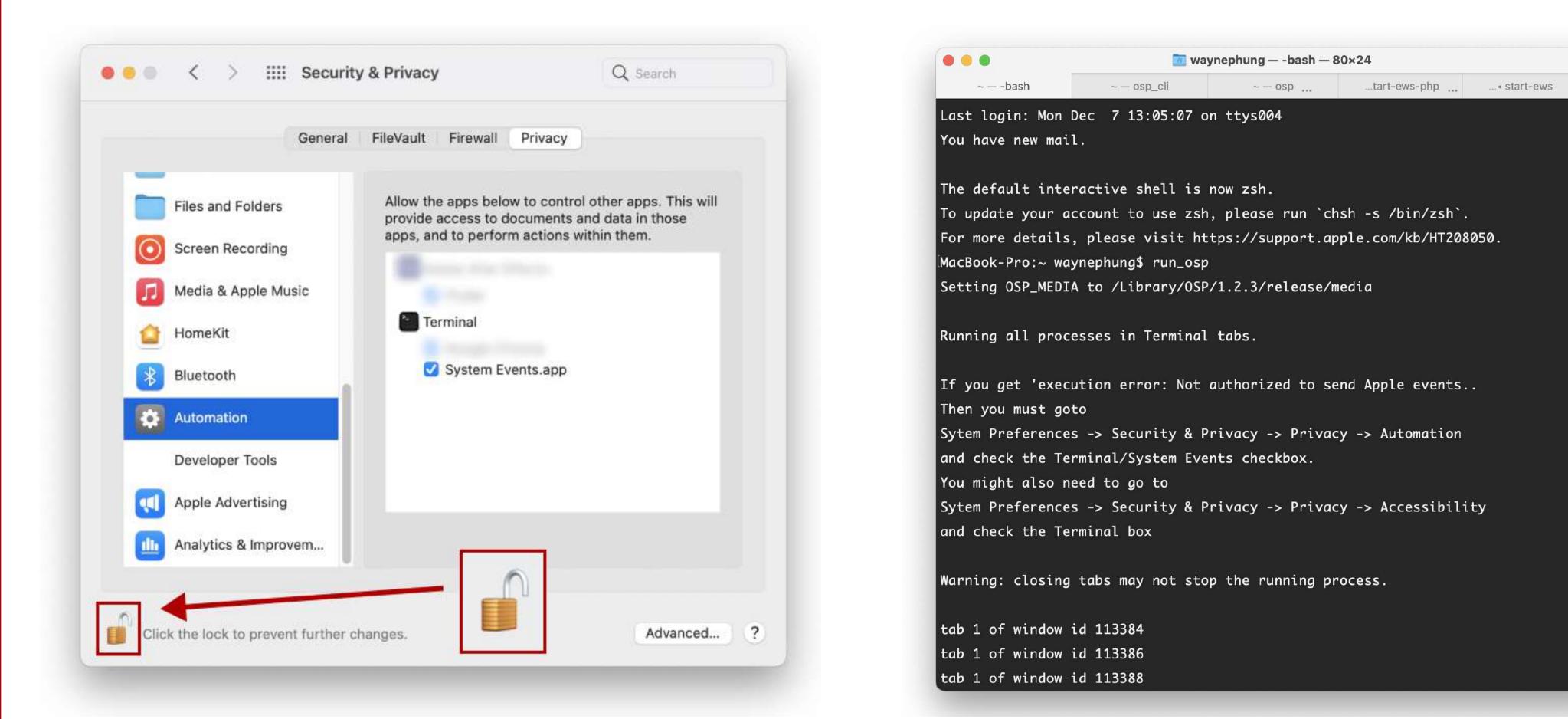
5. Click on the checkbox next to **Terminal to enable Terminal access.** You should see a checkmark.



6. Go to the left sidebar again and scroll down to "Automation". Click on the checkbox next to "System Events.app".



7. Then, click on the lock icon to save these changes. Return to step **6 of "OSP Installation Steps" to try entering "run_osp" again.**



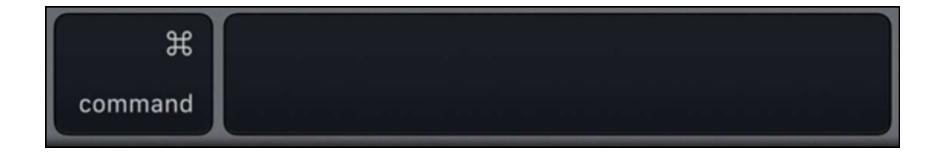
OSP Sanity Check - Making Sure Audio Input and Output Works

1. Choose one method to check and connect your audio input and output sources.

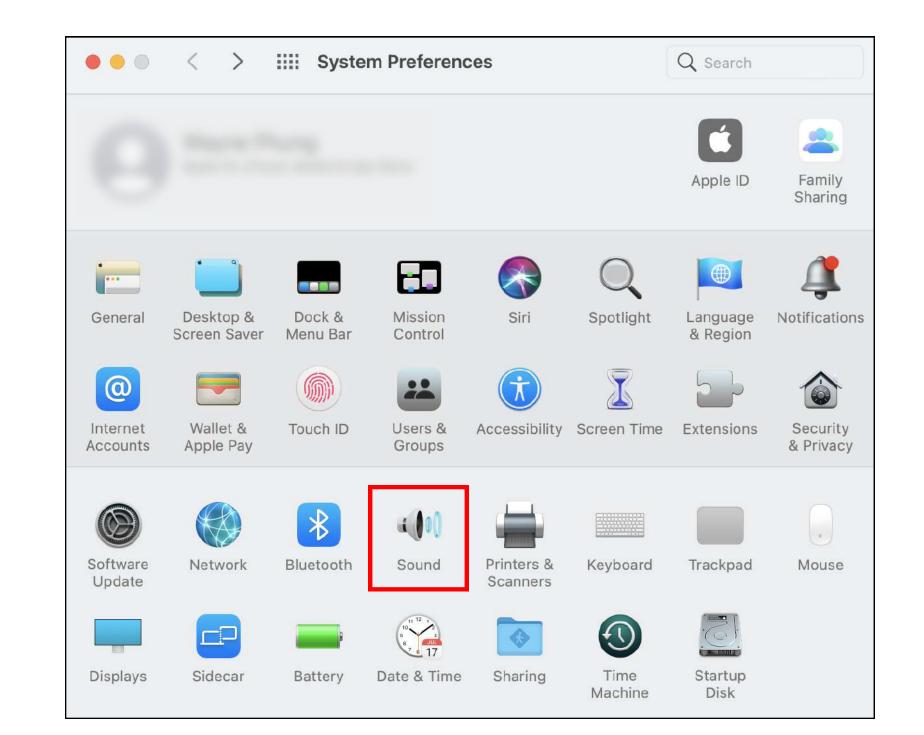
Method A - System Preferences (Mac)

A1. Press command + space to open Spotlight Search and start typing "system preferences".

The app name will be highlighted. Press enter.



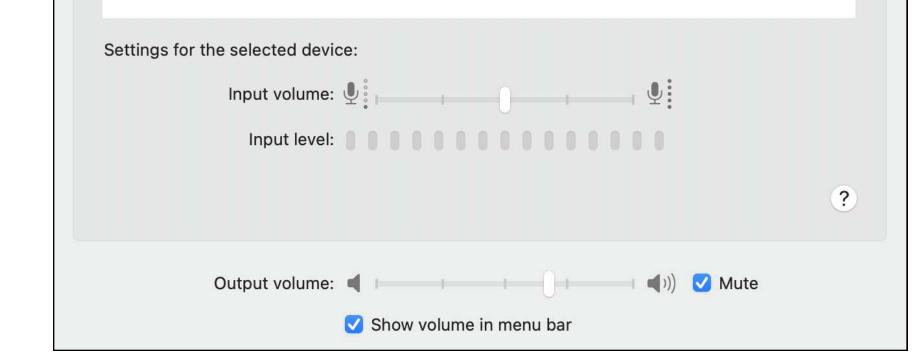
A2. You should see this interface of the System Preferences. Then, click on "Sound".



A3. There are tabs labeled "Output" and "Input", where you can connect available audio microphone input and volume output sources.

●	ound	Q Search
	Sound Effects Output Inpu	ut
Select a device for sound in	nput:	
Name	Туре	
Name	Туре	
Name MacBook Pro Microphone	Туре	

Q Spotlight Search	
Q system Preferences.app	



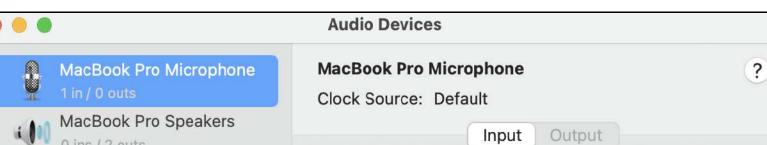
Method B - Audio MIDI Setup (Mac)

B1. Press command + space to open Spotlight Search and start typing "audio midi setup".

The app name will be highlighted. Press enter.

H				
command				

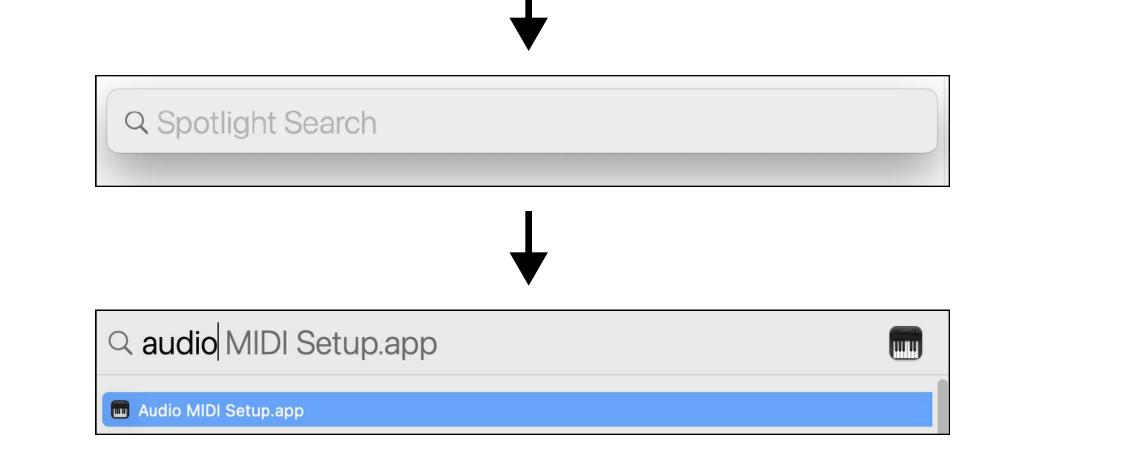
B2. The image below is the Audio MIDI Setup interface, where you can connect your audio sources for microphone input and volume output and make other changes to sound settings.



2. Open the terminal app once you have connected your audio sources.

Open Spotlight Search again.





0 ins / 2 outs	input	ouput
TAOTRONICS SoundLibe	Source: MacBook Pro Microp	phone
	Format: 48,000 Hz 📀 1 c	h 32-bit Float
TAOTRONICS SoundLibe 0 ins / 2 outs	Channel Volume	Value dB Mute Thru
Audiojingle	Volume	
2 ins / 2 outs Audiojingle (UI Sounds) 2 ins / 2 outs	Master	0.373 -3.06
iShowU Audio Capture 2 ins / 2 outs		
> Hulti-Output Device 0 ins / 2 outs		
+ - \$ ~		

Q Spotlight Search	
Type in "terminal", and the application should show up automatically.	Image: state of the state

3. In the terminal, enter the command "run_osp".

You should see 5 terminal tabs automatically opened, running processes, and generating messages.

• •	•		🚾 waynephung — -bash — 80×24			
	~ — -bash	~ — osp_cli	~ — osp	tart-ews-php	start-ews	-

4. Click on the tab named "osp_cli", enter the command "play", and press return/enter.

You should hear an audio file played. The file is named "tomsdiner.wav".

You should see parameters shown and the word "**success**" being shown. 5. To immediately stop the audio file playing, type in the command "stop" and press return/enter.

You should see parameters shown and the word "success" being shown.

OSP> stop

Sending {"method": "set", "data": {"left": {"audio_pla

To update your account to use zsh, please run `chsh -s /bin/zsh`. For more details, please visit https://support.apple.com/kb/HT208050. MacBook-Pro:~ waynephung\$ run_osp Setting OSP_MEDIA to /Library/OSP/1.2.3/release/media

Running all processes in Terminal tabs.

If you get 'execution error: Not authorized to send Apple events.. Then you must goto

Sytem Preferences -> Security & Privacy -> Privacy -> Automation and check the Terminal/System Events checkbox.

You might also need to go to

Sytem Preferences -> Security & Privacy -> Privacy -> Accessibility and check the Terminal box OSP> play
Sending {"method": "set", "data": {"left": {"audio_fil
ename": "tomsdiner.wav", "audio_play": 1, "alpha": 1},
"right": {"alpha": 1}}}
success
OSP>



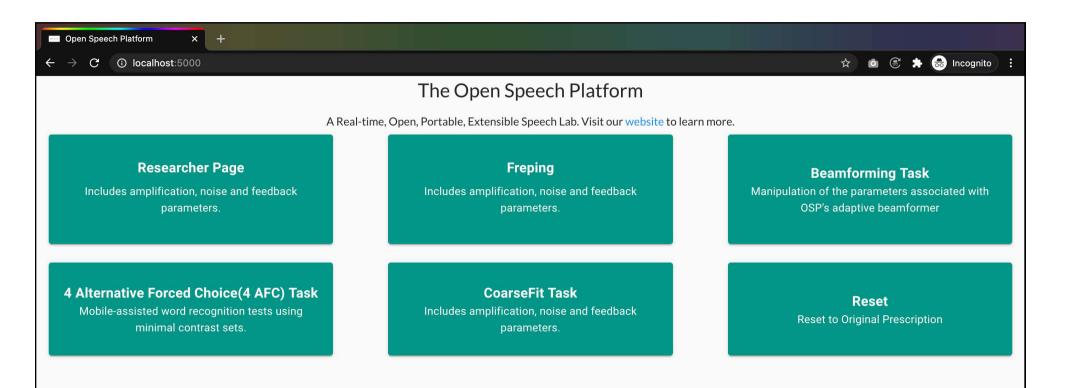
If you can't hear anything, refer to the "Audio Input and Output - Troubleshooting" section in the Getting Started Guide.

OSP Sanity Check - Node.js version of EWS

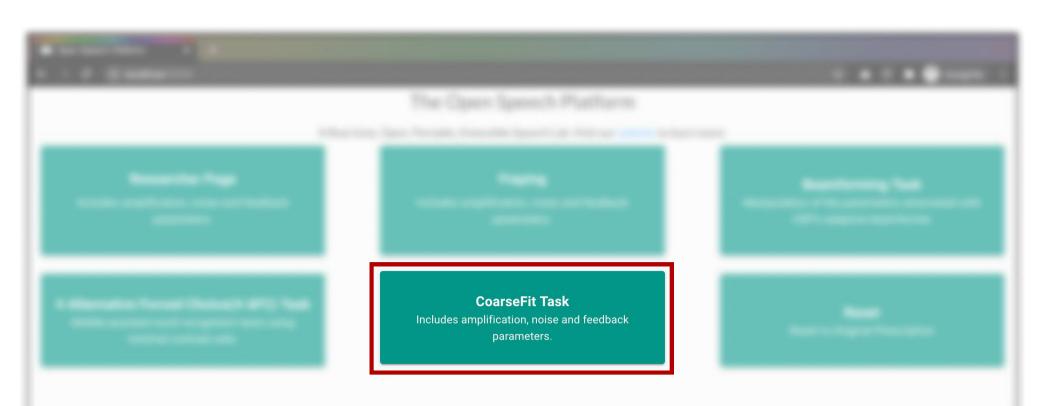
These steps verify that RT-MHA, Node.js version of EWS, and audio input/output work. For PHP/Laravel version of EWS, see "OSP Sanity Check - <u>PHP/Laravel version</u> of EWS"

1. Check your browser that you're in the right landing page.

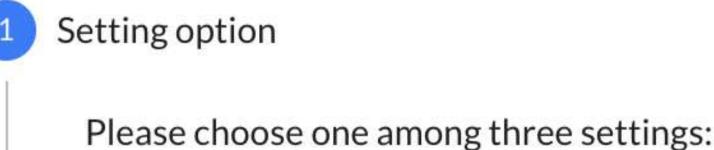
If not, type in "192.168.8.1:5000" in the browser search bar.

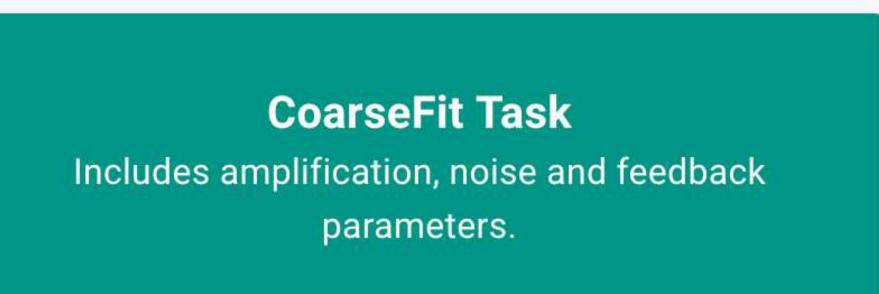


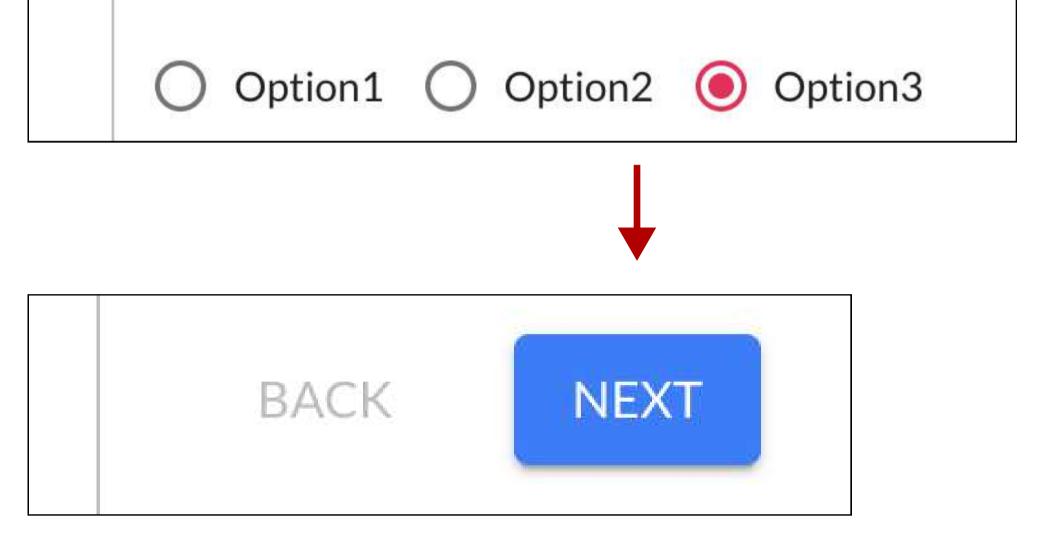
2. In the center below "Freping", click on the button labeled "CoarseFit Task".



3. Choose any one of the three options in the CoarseFit Demo, scroll down. Notice the changes in the images and text. Then, click the "Next" button.





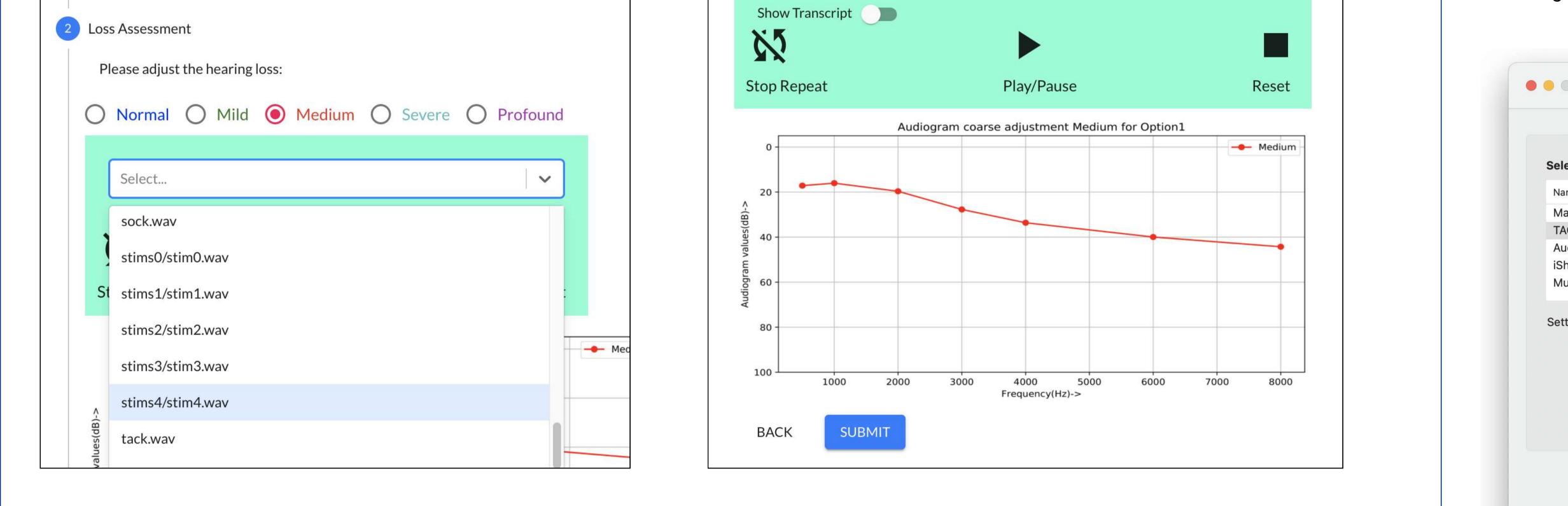


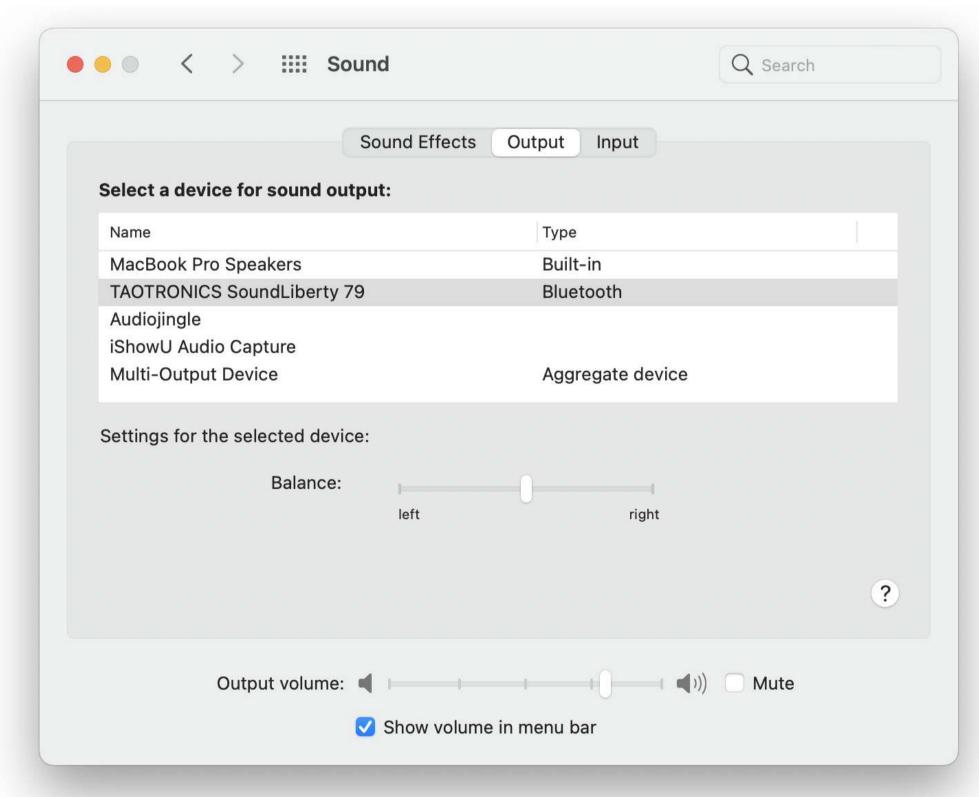
4. Choose one of the five different hearing loss levels and an audio file. You should witness changes to the volume heard and the information shown as you pick different hearing loss levels.

4a. Choose one of the five hearing loss levels, which help change the volume heard. Then, click on the horizontal bar and select an audio file. 4b. Below the audio file section and buttons, you should see changes to the graph based on the hearing loss levels chosen.

5. At this point, you should have an audio input and output source connected to your computer and ready for listening. <u>Check that</u> your volume is NOT muted.

If you have an external headset, please connect it via Bluetooth or through your computer's audio jack.





6. Press the "Play/Pause" button and listen for audio feedback. Adjust the volume on your 7. Play the audio file again, listen, and test the various buttons.

8. You should be finished with testing the demo. Clicking the "Submit" button takes you back to

computer accordingly until you can comfortably listen to the audio file.





se

Only the "stim#/stim#.wav" files have transcripts available. To view the transcript, click on the "Show Transcript" toggle.

Click on the "Reset" button and play the audio file again. You should also be able to notice that the selected word heard and shown has a different shade of color (usually shown red) during audio playback.

```
    Normal O Mild O Medium O Severe O Profound
```

 \sim

Reset

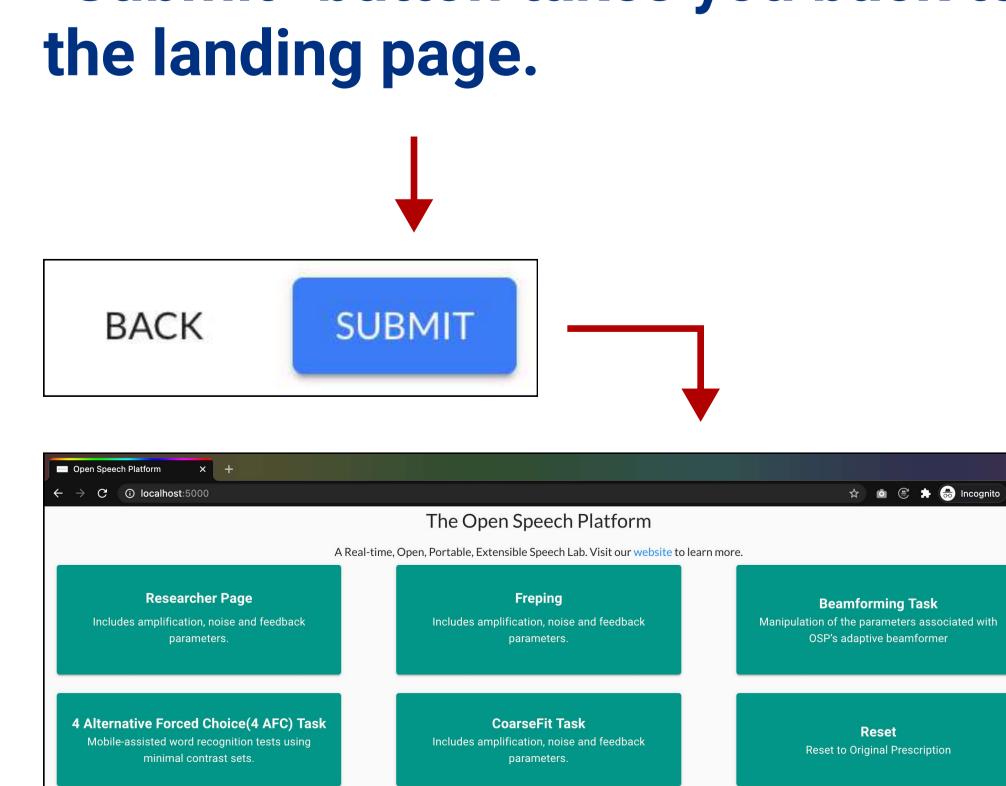
stims4/stim4.wav

Repeat



She had your dark suit in greasy wash water all year. Don't ask me to carry an oily rag like that. She had your dark suit in greasy wash water all year. Don't ask me to carry an oily rag like that

Play/Pause



OSP Sanity Check - <u>PHP/Laravel version</u> of EWS

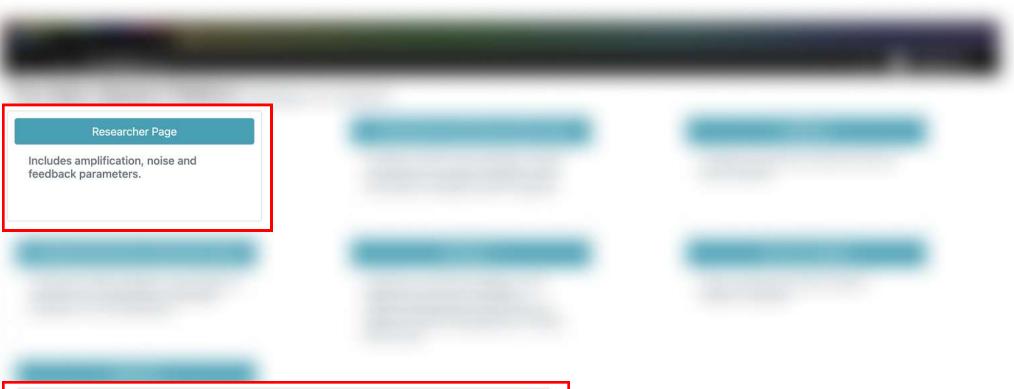
These steps verify that RT-MHA, PHP/Laravel version of EWS, and audio input/output work. For Node.js version of EWS, see "OSP Sanity Check - <u>Node.js version</u> of EWS"

1. In your browser, check that you're in the right landing page.

If not, type in "**localhost:8080**" in the browser search bar.

→ C ① localhost:8080		🖈 😁 Inco
e Open Speech Platform Webapp	s for research.	
Researcher Page	4 Alternate Forced Choice (4AFC) Task	Goldilocks
cludes amplification, noise and edback parameters.	Includes a 4AFC Task webapp in which an end user can play a sound on click and select a response from 4 options.	Includes researcher interface and end user interface
cological Momentary Assessment (EMA)	AB Tasks 👻	Go to our website
cludes an EMA webapp, using which an nd user can respond to a prompted uestion or set of questions.	Includes an AB Task webapp, using which an end user can select a relationship between two presented stimuli, A and B, evaluated on a 7 point likert scale.	This is a link to the Open Speech Platform website!

2. In the upper-right hand corner, click on the button labeled "Researcher Page".



3. You should see this screen for the Researcher Page in the "Amplification" section.

Amplification			Noise Management			Feedback Management		
Home								
Controls								
Control Via:		G50/G8	CR/G65				Read 👻	
AFC:	AFC: On Off		ff		Save			
Global MPO:	Global MPO: 120				Save as			
Channel:		Both	Left Right					
Parameter	250		500	1000	2000	4000	8000	All
CR	1		1	1	1	1	1	
G50	0		0	0	0	0	0	

Researcher Page	
Includes amplification, noise and feedback parameters.	

005	0	0	0	0	0	0	
G80	0	0	0	0	0	0	
Knee	45	45	45	45	45	45	
мро	120	120	120	120	120	120	
Attack	5	5	5	5	5	5	
Release	20	20	20	20	20	20	

4. At this point, you should have an audio input and output source connected to your computer and ready for listening and voice input. <u>Check that volume is NOT muted.</u>

5. Scroll to the bottom of the page and click on the "Transmit" button. Then, speak into your computer or headset's microphone and listen for immediate audio feedback.

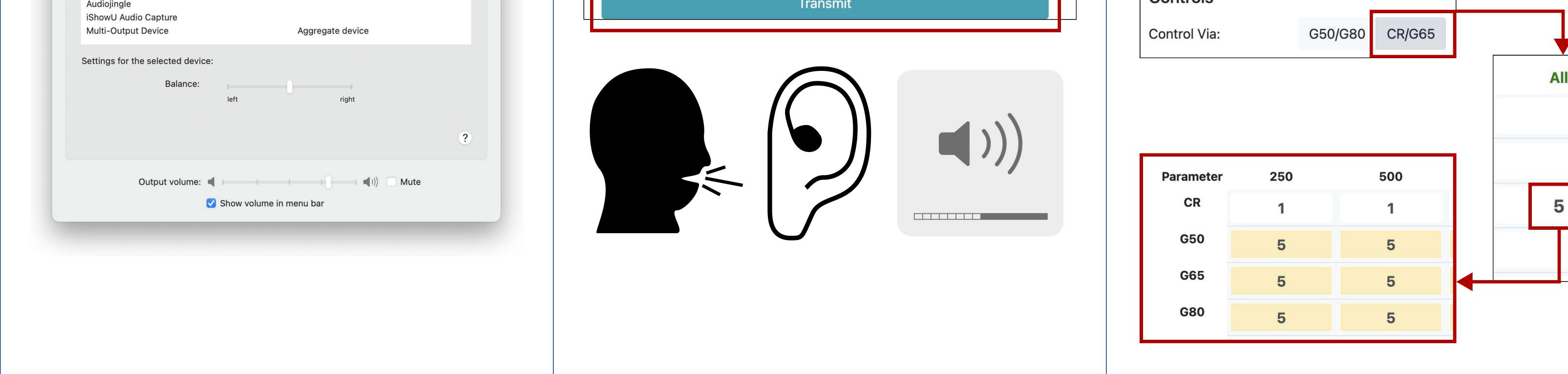
• • • • • • • • • • • • • • • • • • • •	Q Search	
	Sound Effects Output Input	
Select a device for sound o	output: Type	
Name		
MacBook Pro Speakers	Built-in	

20	20	20				
0	0	Ο				

6. Scroll back up and view the "Controls" settings. Next to "Control Via:", click on CR/G65. Then, In the boxed cell within the "All" column and "G65" row, type in "5". Notice the change in values.

Changing the value in the boxed cell to "5" should change the gain for "g65" to be 5 decibels (dB SPL) across all frequency bands (250 to 8000 Hertz).

Controls



7. Scroll to the bottom of the page and click on the "Transmit" button again. Speak into your computer or headset's microphone and listen for immediate audio feedback.

Notice the differences in volume.



