How to control a Mac running macOS Mojave, Catalina and Big Sur

1.0 Background

Apple introduced a new security mechanism in macOS 10.14 Mojave and made it stricter in macOS 10.15 Catalina. The new security mechanism requires that special access is granted to remote control applications, and therefore also to the WiseMo Mac Host module. Without granting this access, WiseMo Guest users connecting to a Mac computer running Mojave, Catalina or Big Sur will not be able to view the screen or control it with their mouse or keyboard.

macOS also restrict access to certain folders (like pictures) and files on the disk. To enable full access to the disk, go to paragraph "3.3 How to grant full file transfer access for the WiseMo Host".

Apple's implementation doesn't allow for example the installation program or the Host app itself to grant these rights. This access must be granted locally on the Mac through the Mac user interface and requires admin rights to grant it.

The following permissions should be granted:

Accessibility (input simulation): The WiseMo Host requires Accessibility access so the mouse and keyboard can be controlled remotely.

Screen Recording (Catalina and Big Sure only): The WiseMo Host requires Screen Recording access so a remote user running the WiseMo Guest module can see the screen.

Full Disk Access: WiseMo Host requires Full Disk Access to access files and folders on your Mac for the File Transfer feature and accessing files in general.

1.1 Prerequisites

This document applies to macOS 10.14 Mojave, macOS 10.15 Catalina and macOS 11.* Big Sur.

This document applies to macOS Host version 18.00 (2021055) or newer. Please make sure you run at least this version. To verify the Host version, click on the WiseMo Host icon in the macOS status bar and select **About** in the popup menu:

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Friday, March 5, 2021
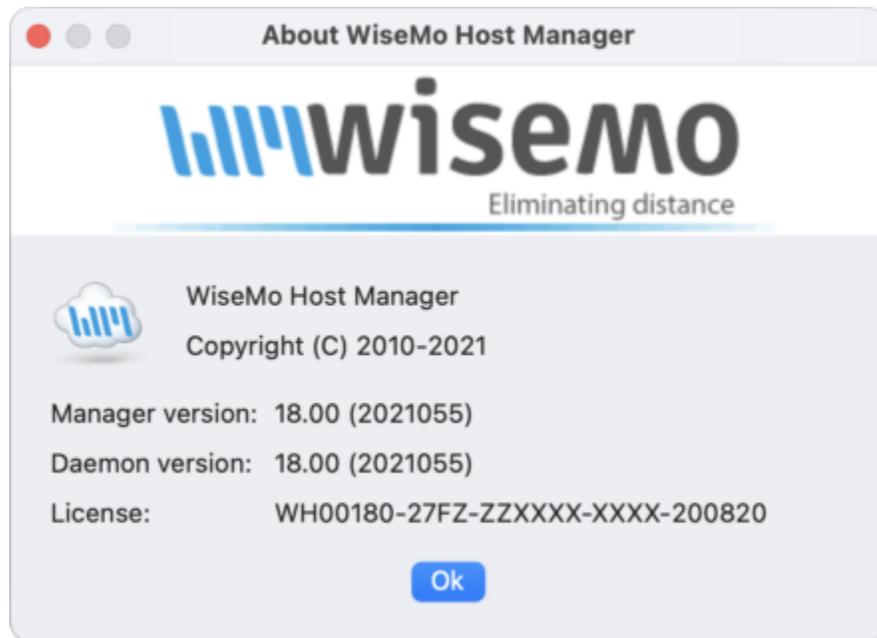
If you run an older version of the Host, please upgrade.

2.0 How to grant remote control access for the WiseMo Host

When the WiseMo Host is launched for the first time on a Mac computer running Mojave or later you will be presented with this WiseMo configuration dialog:
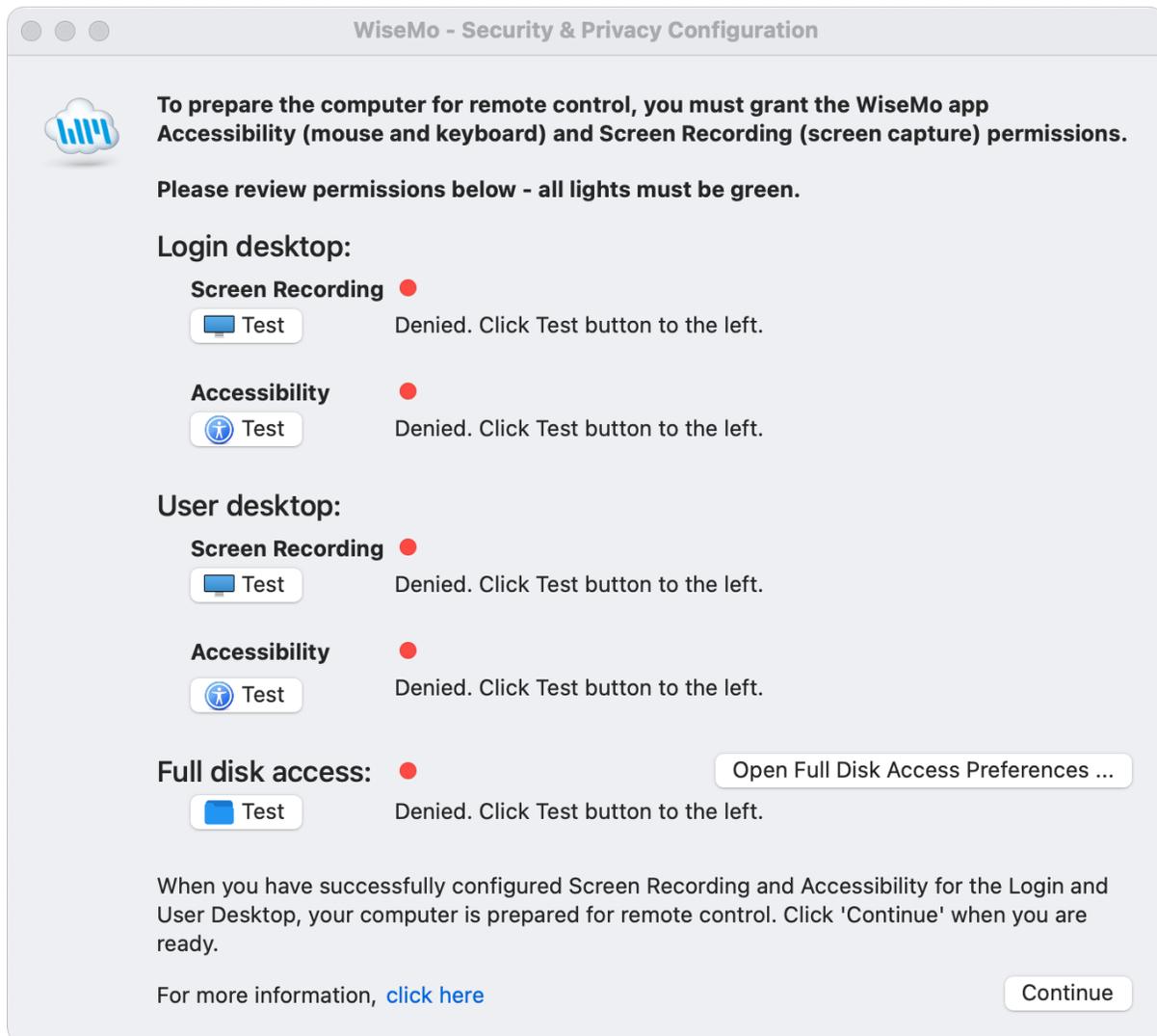
The dialog shows some lights that can be red (access denied), yellow (access undetermined) and green (access granted).

When this dialog opens for the first time, all lights will be red on Catalina and later. If running on Mojave, the Screen Recording lights will be green and the test button disabled because Screen Recording doesn't need to be configured on Mojave. Configuration is finished when all lights are green.

There are 3 sections that need to be configured:

- **Login desktop**: the desktop when logging in
- **User desktop**: the desktop you see when a user is logged in
- **Full disk access**: Necessary for file transfer. When Guest users are authenticated via **System Security Management**, the folders and files a Guest user has access to are subject to the macOS access rights.

The configuration process follows this procedure:

1. Click the **Test** button
2. The following dialog should appear:
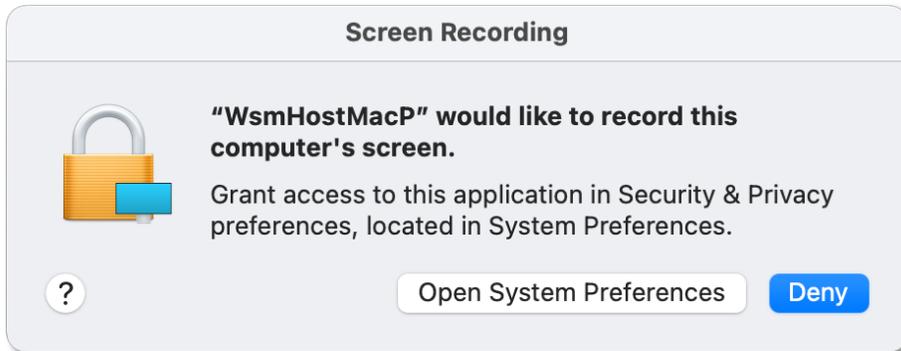
The text to the right will change to:
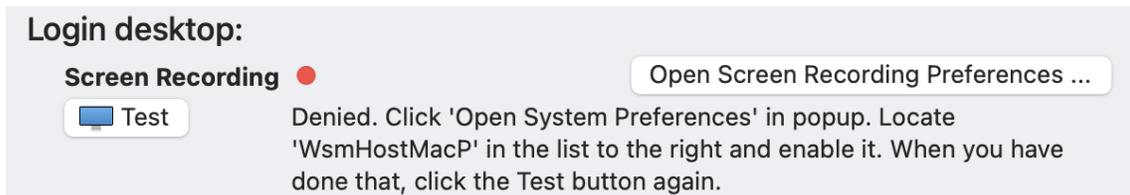
And a button will appear, in this case **Open Screen Recording Preferences**
Please note the name it asks you to locate, here **WsmHostMacP**

3. Click the **Open System preferences** button in the dialog that appeared. If you do not see the dialog, click the **Open Screen Recording Preferences** button in configuration dialog.
4. In either way, the dialog **Security & Preferences** will open and set focus on the **Screen Recording** permission:
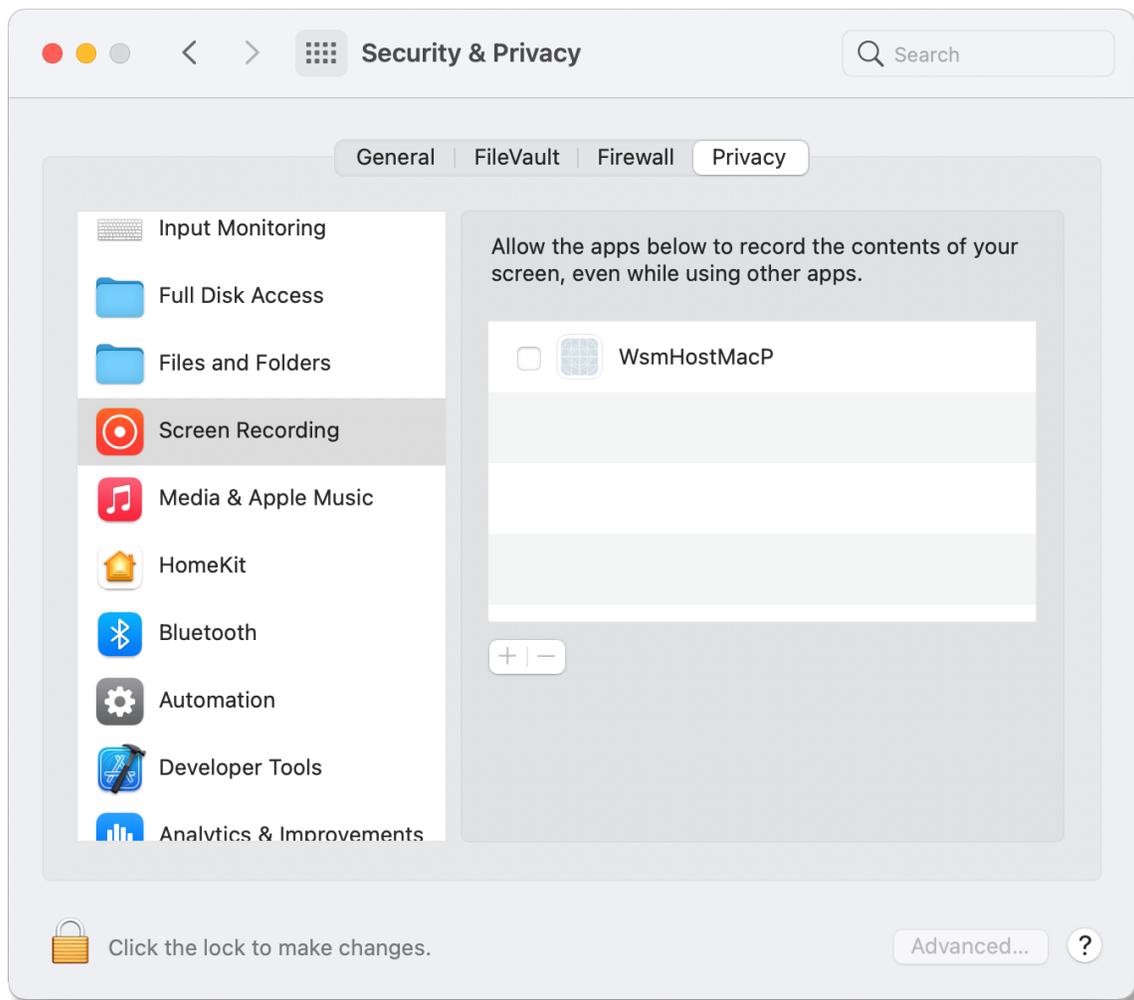
5. Click the padlock image in the lower left corner of the **Security & Preferences** dialog to be allowed to make modifications. Use an administrator account.
6. Then check the **WsmHostMacP** module to grant it permission.
7. When checking the module you might see the following prompt:
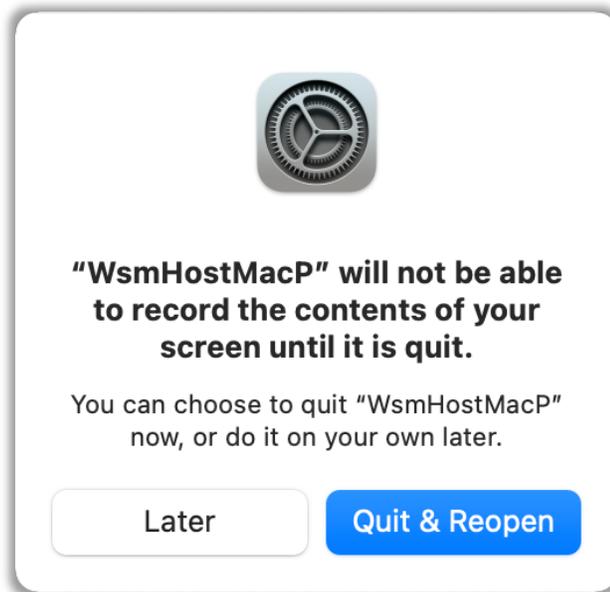
You can just click **Later**.

8. Go back to the Host configuration dialog and click the **Test** button again. Now the light should become green:
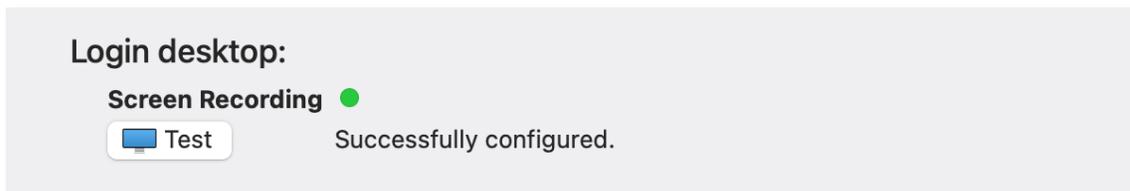
9. If the light is red, please make sure you followed this procedure. Otherwise please go to paragraph "2.0 How to grant remote control access for the WiseMo Host"

Follow the same procedure for **Screen Recording** and **Accessibility** for **Login Desktop** and the **User desktop.**

Full disk access follows more or less the same procedure except that you start with bullet 3 and click **Open Full disk access Preferences** in configuration dialog.

After having enabled Full disk access you might want to have the system restart the WiseMo Host Manager. If the configuration dialog doesn't reappear automatically, you can open the **WiseMo Host Manager** menu and click **Review Security & Privacy Permissions**.

When everything is configured successfully, the configuration dialog doesn't open automatically.

3.0 Troubleshooting

If you didn't succeed making all the lights green in the configuration dialog in paragraph "2.0 How to grant remote control access for the WiseMo Host" you should start with:

1. Exit the **WiseMo Host Manager** by clicking the Host icon in the Mac status bar and select **Exit** in the popup menu.
2. Then start the **WiseMo Host Manager** again from **Applications** (**WiseMo > WiseMo Host Manager**) or from **LauchPad.**
3. If the configuration dialog doesn't appear automatically, you can open the **WiseMo Host Manager** menu and click **Review Security & Privacy Permissions**. Please note that when everything is configured successfully, the configuration dialog doesn't open automatically.
4. Go through the configuration again in paragraph "2.0 How to grant remote control access for the WiseMo Host".

If this didn't help, please try to restart your computer and go through the configuration in paragraph "2.0 How to grant remote control access for the WiseMo Host" once again.

3.1 Troubleshooting
Try to follow these steps if you still have problems.

I do not see the WiseMo configuration dialog
You can open the **WiseMo Host Manager** menu in the Mac status bar and click **Review Security & Privacy Permissions**.

Please note that the **WiseMo Host Manager** doesn't have a menu if the Host icon isn't shown in the Dock. To verify whether the Host Manager is shown in the Dock, go **Configuration > Program Options** and make sure **Show icon in Dock** is checked.

When everything is configured successfully, the configuration dialog doesn't open automatically.

The Security and Privacy dialog doesn't open in step 4 in paragraph 2.0 *above*

a. Open System Preferences from LaunchPad
b. Click "Security and Privacy" and select the "Privacy" tab.
c. Scroll down and locate **Accessibility**, **Screen Recording** or **Full Disk Access** and continue from step 5 in paragraph 2.0 above.
d. If you cannot locate the modules you are looking for go to "3.2Very advanced configuration".

If nothing works, go to the procedure described in "3.2 Very advanced configuration".

3.2 Very advanced configuration

This should only be done if the above methods and troubleshooting doesn't work.

Try to follow these steps if you still have problems.

I do not see the WiseMo configuration dialog

 Follow these steps to grant Accessibility (input simulation) permissions:

1. Open System Preferences from LaunchPad
2. Click "Security and Privacy" and select the "Privacy" tab.
3. Scroll down in the view to the left and select "Accessibility":
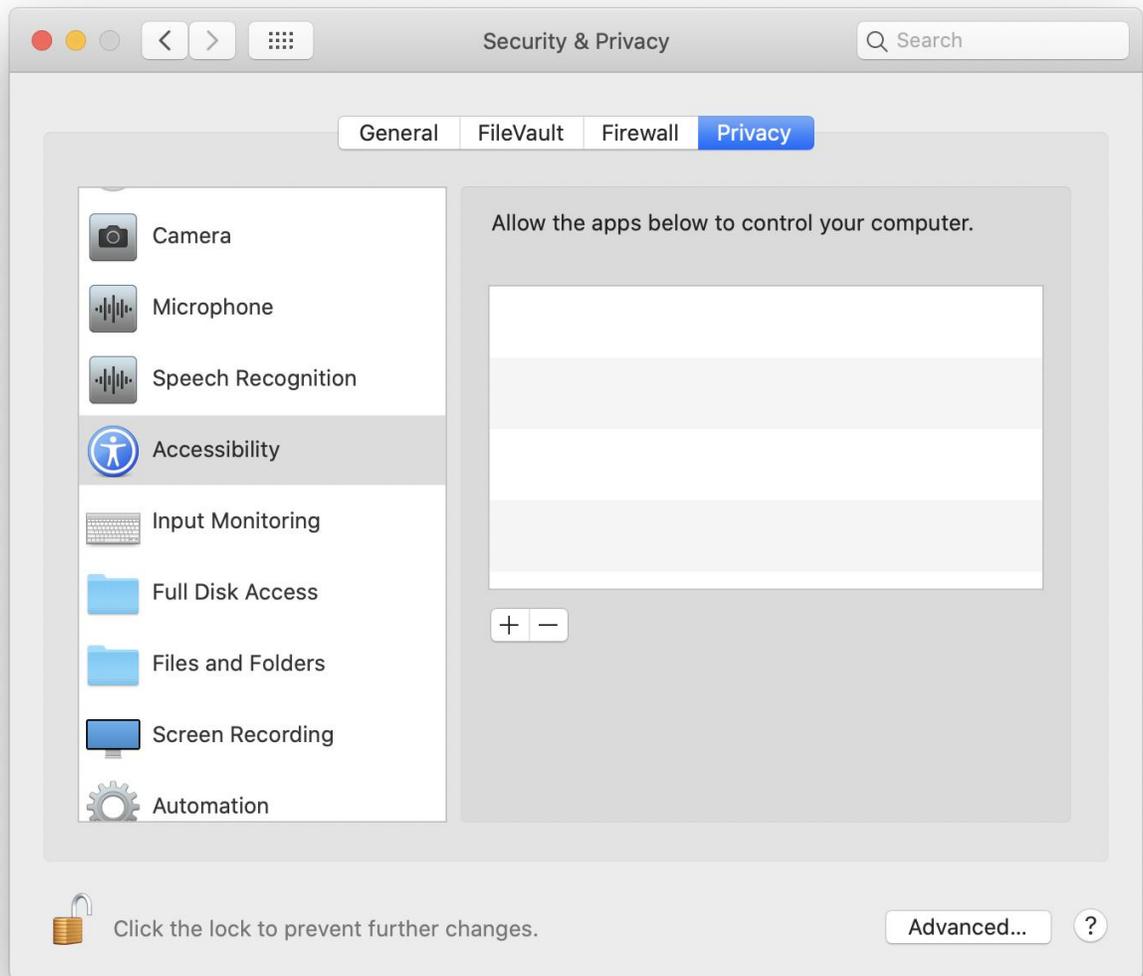
4. Click the padlock in the lower left corner to be allowed to make modifications.
5. If WsmHostMacP is missing from the list, do the following:
    a. Open Finder and type Shift-Command-G (⇧⌘G) and enter "/Library/Application Support/WiseMo" and locate WsmHostMacP.
    b. Drag it into the list in the right side of the "Security & Privacy" dialog:
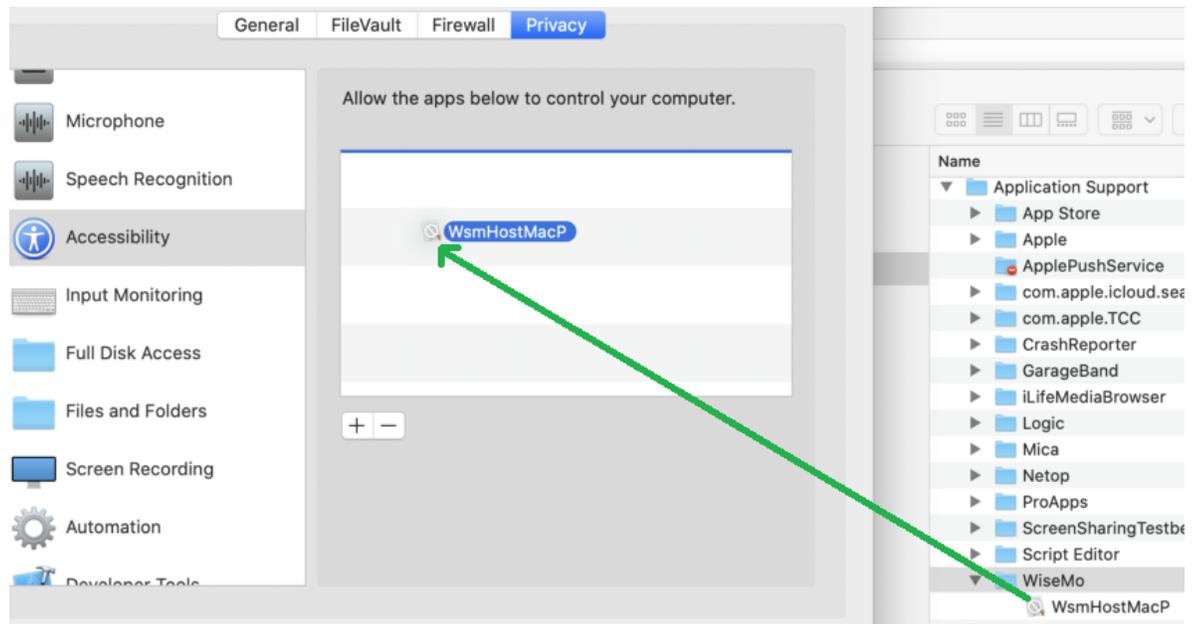
     c.   Make sure the file is enabled with a checkmark.
6. If WsmHostMacA is missing from the list, do the following:
     a.   Open Finder and type Shift-Command-G (⇧⌘G) and enter "/Applications/WiseMo RSM" and locate "WiseMo Host Manager".
     b.   Right click it and select "Show Package Contents" in the popup menu.
     c.   Open "Contents", "PlugIns" and then "daemons" and locate WsmHostMacA.
     d.   Drag it into the list in the right side of the "Security & Privacy" dialog like for WsmHostMacP.
     e.   Make sure the file is enabled with a checkmark.
7. You should now be able to use keyboard and mouse from your Guest both on the login screen and while a user is logged in.

Follow the same procedure for Screen Recording on Catalina and Big Sur. There are unfortunately no manual steps to add the WiseMo modules to the "Screen Recording" permissions list on Catalina.

If it still doesn't work

The following will reset all apps that are already configured for **Screen recording** and **Accessibility** and they will hence need to be reconfigured as well.

Follow these steps:

1. Log out all other users from the Mac computer so there's only one user logged in (the one you are using).

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2. Locate the WiseMo Host logo [image] in the Mac status bar. Click it and select **Exit** in the pop-up menu.
3. Open a command prompt and run:

> /usr/bin/tccutil reset ScreenCapture

And then run

> /usr/bin/tccutil reset Accessibility

4. Restart the computer
5. Login to the computer
6. The Host configuration dialog should show and you can follow the standard procedure described above.

3.3 How to grant full file transfer access for the WiseMo Host

Apple has restricted access to certain folders (like pictures) and files on the disk.

If the automated method in paragraph 2.0 fails to enable full access to the disk follow these steps:

1. Open System Preferences from LaunchPad
2. Click **Security & Privacy** and select the **Privacy** tab.
3. Scroll down in the view to the left and select "**Full Disk Access**.
4. Open **Finder** and type Shift-Command-G (⇧⌘G) and enter "/Applications/WiseMo RSM" and locate "WiseMo Host Manager".
5. Drag it into the list in the right side of the "Security & Privacy":

6.
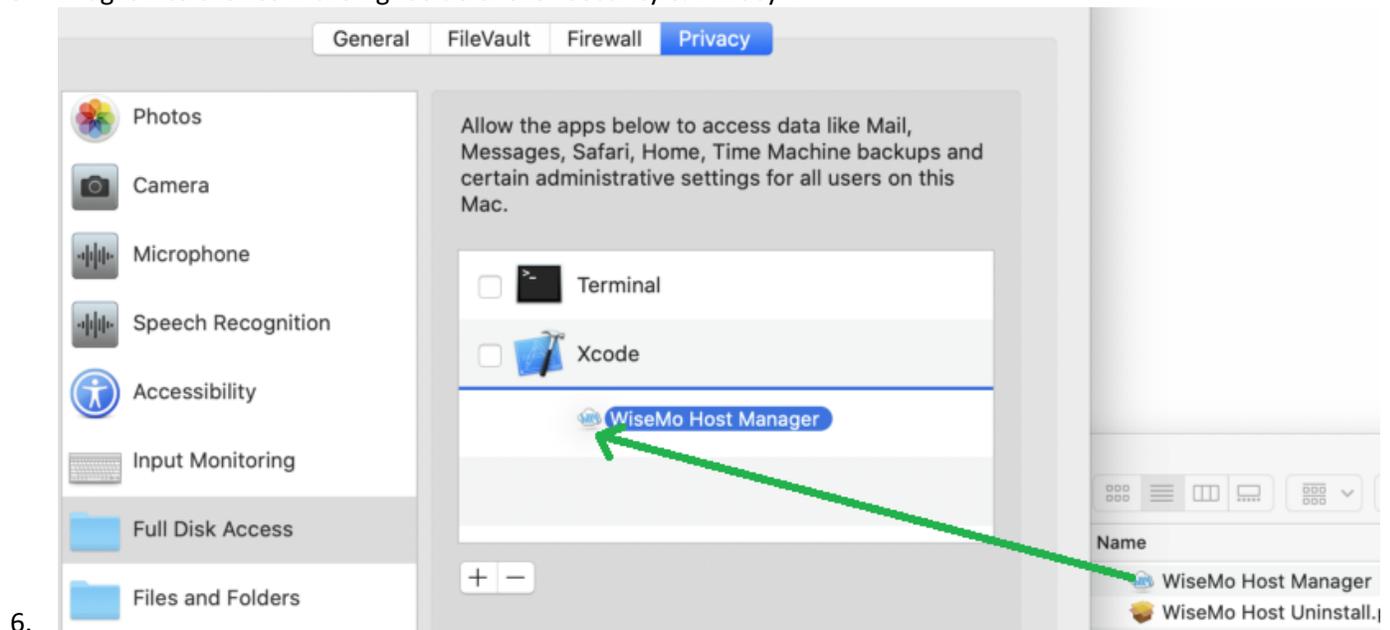
Even though "Full Disk Access" is granted, there will still be folders and files that the WiseMo Host cannot access.