

MacOS MOJAVE (10.14) APPROVALS FOR LANSCHOOL USING MOBILE DEVICE MANAGEMENT

MacOS Mojave (10.14) introduces new privacy protection systems that can be challenging to configure correctly so that all installed software works as it should. Since it would be impractical to visit each computer to make these approvals, Apple has extended their Mobile Device Management (MDM) system to allow remote configuration of many of these approvals.

The macOS Mojave (10.14) approvals necessary to enable full functionality for the LanSchool Student can be configured using a Mobile Device Management (MDM) Server.

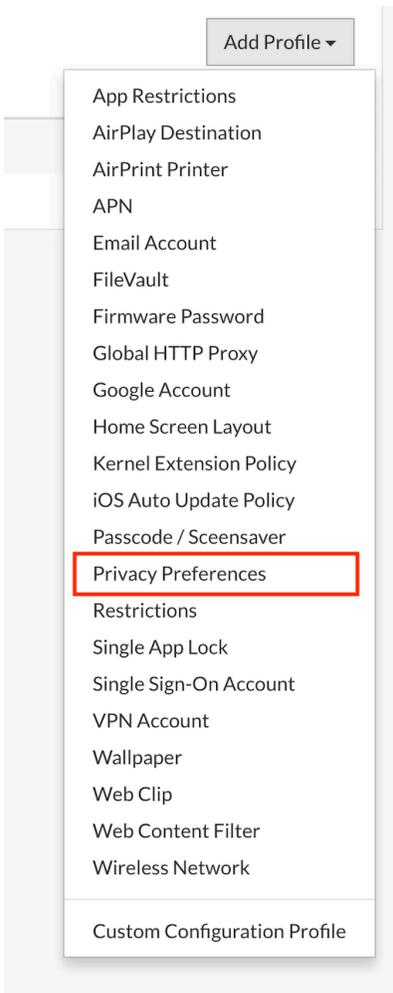
The LanSchool Student requires four approvals in order to allow all functionality:

1. **Accessibility.** This allows keystroke recording and alerting and keyboard and mouse input blocking during Remote Control.
2. **Automation.** Allowing the LanSchool Student to automate Safari enables control of Safari during Web Limiting so that students are kept on the websites allowed by the Teacher. Also, allowing the LanSchool Student to automate Finder allows the Teacher to Clear Desktop, which closes all the windows on the Desktop. This can help make the transition from one class to another less hectic.
3. **Microphone.** Allowing the LanSchool Student to use the microphone allows a Teacher to talk to a student, and also allows the student to talk to the rest of the class. Unfortunately at this time Apple does NOT allow microphone access to be configured via MDM. The approval can be made by running “/Applications/LanSchool Student” on the student computer and going through the approval wizard.
4. **Full Disk Access.** The LanSchool Student needs to access Safari files in order to determine and record where a student is browsing. This is also important during Web Limiting so that students are kept on the websites allowed by the Teacher. The LanSchool Student only needs to access Safari files, although it will also access Firefox history files as well even though at this time those are not protected by macOS.

In the following examples we use SimpleMDM (<https://simplemdm.com/>) as an example MDM provider, your MDM provider interface may look a little different but will likely have very similar features.

There are two applications that make up the LanSchool Student. They are “LanSchool” and “LanSchool Student”, but their filenames are lsutil.app and student.app, respectively. Their Bundle Identifiers are com.lanschool.lsutil and com.lanschool.student, respectively.

Navigate your MDM provider interface to where you can create Profiles and choose to create a profile to configure Privacy Preferences:



You will need to create an “App Identity” for the application Bundle IDs `com.lanschool.lsutil` and `com.lanschool.student`.

Typically you would choose to identify each application by Bundle ID. You will need to enter a code requirement, which Apple uses to verify that our applications are cryptographically signed by Apple and not altered or tampered with. You will also need to choose Permissions.

For the “LanSchool” application, enter `com.lanschool.lsutil` as the Bundle ID, with a Code Requirement of “anchor trusted” as shown below. The only permission this application needs is Accessibility as shown below.

com.lanschool.lsutil Privacy identity

Identifying Information

* Identifier type: bundle ID

* Identifier: com.lanschool.lsutil

* Code requirement: anchor trusted

The code signature for the application. Obtained via "codesign -display -r - [path]"

Static code validation: No

If the process invalidates its dynamic code signature, attempt to statically validate the code requirement.

Access Permissions

Permit or block this application from accessing system services.

- Address book: Not Set, Block, Allow
- Calendar: Not Set, Block, Allow
- Reminders: Not Set, Block, Allow
- Photos: Not Set, Block, Allow
- Camera: Not Set, Block
- Microphone: Not Set, Block
- Accessibility: Not Set, Block, Allow
- Post event: Not Set, Block, Allow
- Access all files: Not Set, Block, Allow
- Access system files: Not Set, Block, Allow

Apple Event Targets

Permit or block this application from sending Apple Events to other processes.

Identifier Type	Identifier	Code Requirement	Access

Cancel Save

For the “LanSchool Student” application, enter com.lanschool.student as the Bundle ID, with a code requirement of “anchor apple generic and identifier “com.lanschool.student””. This application needs Accessibility, Post Event, and “Access All Files” permissions.

com.lanschool.student Privacy identity

Identifying Information

* Identifier type: bundle ID

* Identifier: com.lanschool.student

* Code requirement: anchor trusted

The code signature for the application. Obtained via "codesign -display -r - [path]"

Static code validation: No

If the process invalidates its dynamic code signature, attempt to statically validate the code requirement.

Access Permissions

Permit or block this application from accessing system services.

Address book	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	<input type="radio"/> Allow
Calendar	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	<input type="radio"/> Allow
Reminders	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	<input type="radio"/> Allow
Photos	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	<input type="radio"/> Allow
Camera	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	
Microphone	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	
Accessibility	<input type="radio"/> Not Set	<input type="radio"/> Block	<input checked="" type="radio"/> Allow
Post event	<input type="radio"/> Not Set	<input type="radio"/> Block	<input checked="" type="radio"/> Allow
Access all files	<input type="radio"/> Not Set	<input type="radio"/> Block	<input checked="" type="radio"/> Allow
Access system files	<input checked="" type="radio"/> Not Set	<input type="radio"/> Block	<input type="radio"/> Allow

Apple Event Targets

Permit or block this application from sending Apple Events to other processes.

Identifier Type	Identifier	Code Requirement	Access
bundle ID	com.apple.finder	identifier "com.apple.finder" and anchor apple	Allow
bundle ID	com.apple.Safari	identifier "com.apple.Safari" and anchor apple	Allow

The “LanSchool Student” application also needs two “Apple Event Targets”, one for Safari and one for Finder. This allows the LanSchool Student application to send messages to Safari and Finder.

Enter the information as shown below. Be careful when entering the Code Requirements as they must be specified exactly as shown.

Apple Event Targets

Permit or block this application from sending Apple Events to other processes.

Identifier Type	Identifier	Code Requirement	Access
bundle ID	com.apple.Finder	identifier "com.apple.Finder" and anchor apple	Allow
bundle ID	com.apple.Safari	identifier "com.apple.Safari" and anchor apple	Allow



Once you have created the profile, use your MDM provider to send the profile down to all computers that are running or will run the LanSchool Student. You are done!

Please note that you can also use your MDM server to configure settings for the LanSchool Teacher and Student. See the document "Managing LanSchool Settings With Managed Profiles.pdf".