



Jamf Actions

March 2024

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Introduction and Requirements

Background

Eliminating technical overhead and simplifying the end user experiences, together, cuts down on time required to execute IT related tasks, decreases the number of IT tickets and most importantly, allows our end users to be more successful more efficiently. Be it a nurse that needs to quickly erase and set up a device ready for the next patient, a librarian assisting a student in checking out an iPad while ensuring that the previous student's data is appropriately removed, or a shift worker that uses the device as a tool during their shift but making sure the device has accounts logged out and is configured for the next user.

Jamf Actions bridges the gap between the need to rapidly configure iOS and iPadOS devices without the end users reaching out to IT or going through a multi-step, time consuming and tedious process. Thanks to Shortcuts on Mac, plug your device(s) into a Mac with Jamf Actions and Apple Configurator, and unplug when the device is ready. Two steps, plug and unplug.

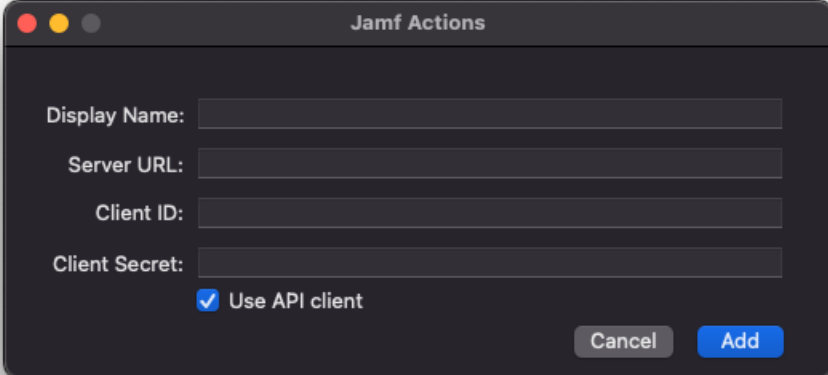
System Requirements

- Mac with macOS 14 Sonoma
- Jamf Actions App
- Jamf Pro User/API Account
(Permissions will vary based on desired workflows)
- Apple Configurator for Mac (Required for desired workflows)

Jamf Actions Configuration

1. (If desired) Deploy/install Apple Configurator for Mac
2. Deploy/install Jamf Actions app
3. Open Jamf Actions and fill in the following...
 1. Display Name: A desired name to identify the server used
 2. Server URL: Your Jamf Pro URL
example - <https://yourcompany.jamfcloud.com>
 3. Client ID: The Client ID with the permissions to execute desired tasks for the workflows.
(Or username if workflow requires)
 4. Client Secret: The corresponding Client Secret of the Client ID entered above (Or password if workflow requires)
4. Click "Add". If an error occurs, verify the URL and credentials and try again.

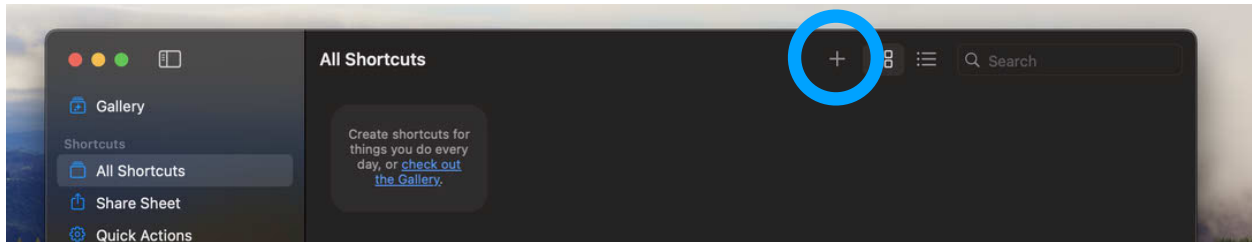
You may close Jamf Actions once a server has been added and authenticated. It does not need to be open for Shortcuts or Apple Configurator to work.



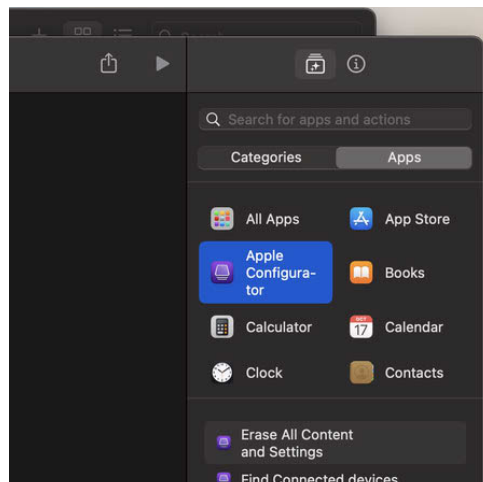
The image shows a macOS-style window titled "Jamf Actions". It contains four text input fields labeled "Display Name:", "Server URL:", "Client ID:", and "Client Secret:". Below these fields is a checkbox labeled "Use API client" which is checked. At the bottom right of the window are two buttons: "Cancel" and "Add".

Apple Configurator for Mac Workflow Setup Guide

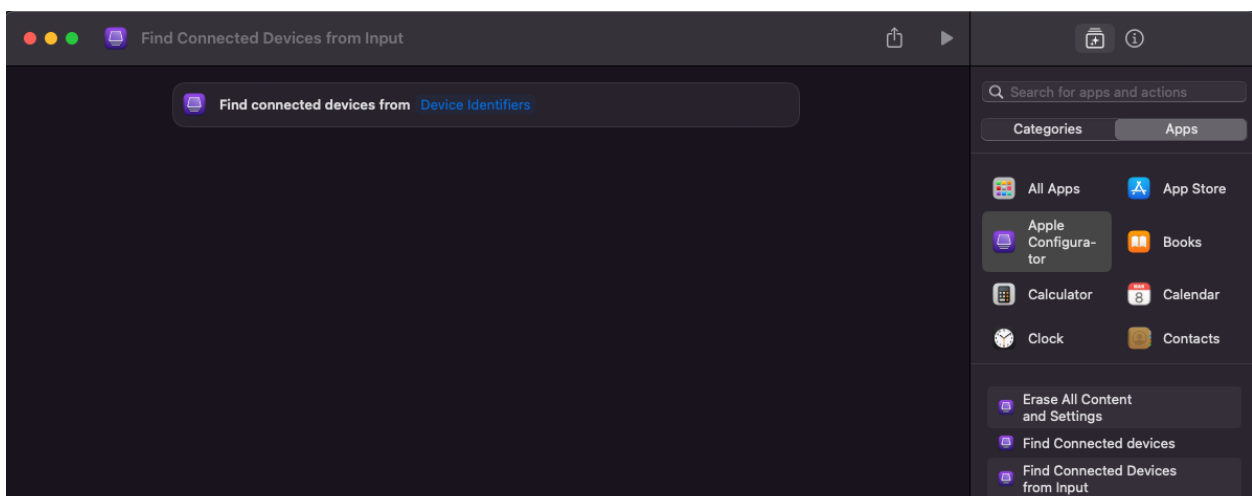
1. Open Shortcuts
2. In Shortcuts click “File” and “New Shortcut” OR the “+” sign in the upper right



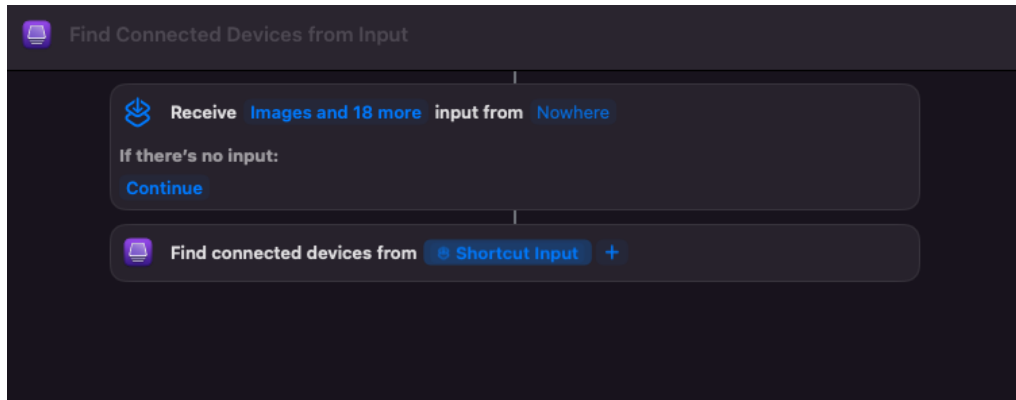
3. Navigate to the “Apps” tab and click “Apple Configurator” from the options



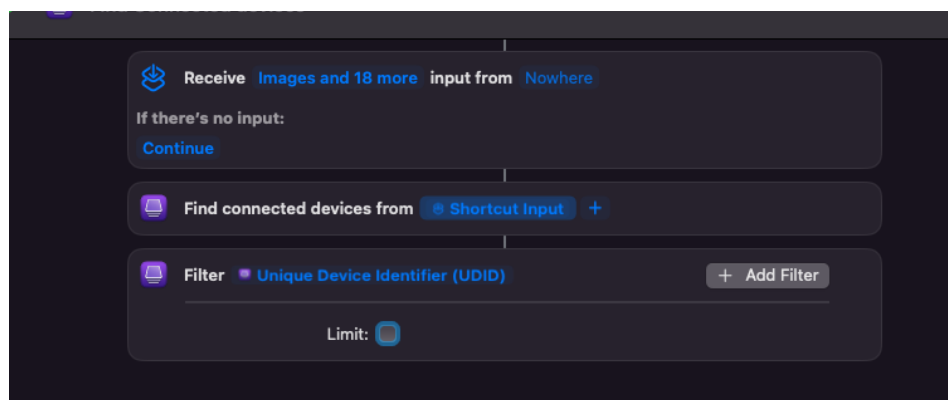
4. Once Apple Configurator actions options appear, click and drag “Find Connected Devices From Input” into the large area to the left that states “Add actions from the right to build your shortcut”



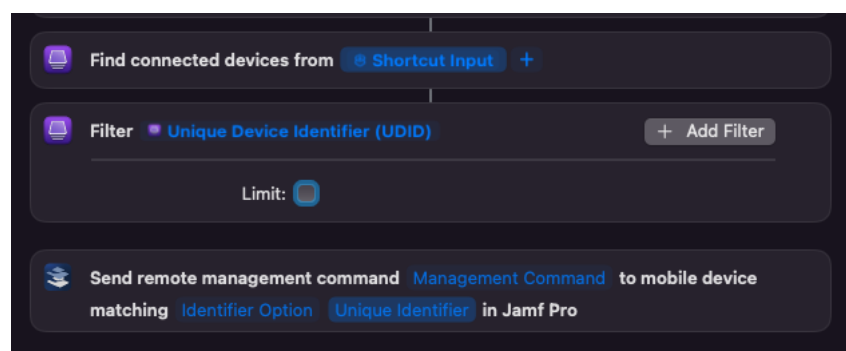
5. In the field marked “Device Identifiers” input “Shortcut Input”. As you type, it should begin to autofill and make sure to select the dropdown containing a shortcuts icon like shown.



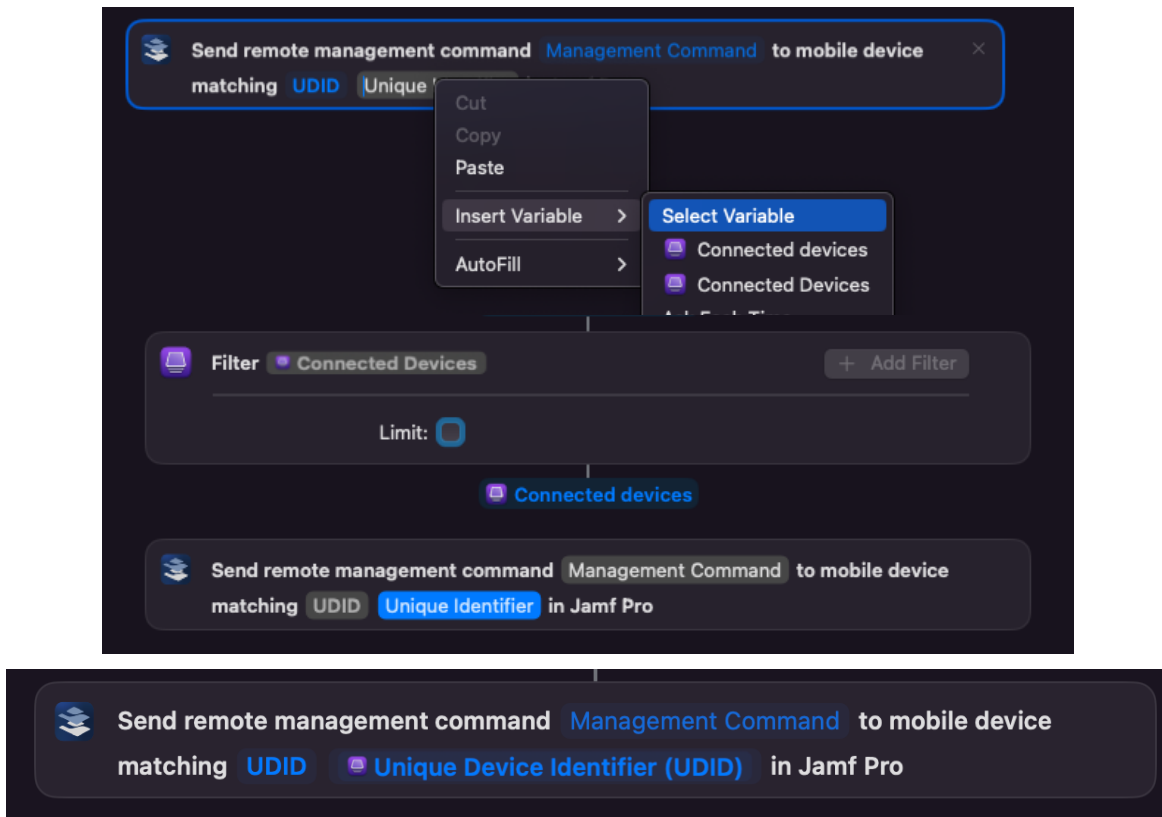
6. From the Action selector, click and drag “Find Connected Devices” beneath the previously marked “Find connected devices from Shortcut Input”. And next to “Filter” click “Connected Devices” and from the selector tool, select Filter Unique Device Identifier (UDID).



7. Navigate back to the “Apps” tab and click “Jamf Actions” from the options
8. Once the Jamf Actions actions appear, click and drag the desired action underneath the “Filter Unique Device Identifier (UDID)” action



9. For “Identifier Option”, choose “UDID”. In the “Unique Identifier”, secondary/right click on that field, navigate to “Insert Variable” followed by “Select Variable.” Choose the option for “Connected devices” in between the “Filter” action and the Jamf Action action with a Configurator icon. From the newly populated “Connected devices” choose “Unique Device Identifier (UDID)”.

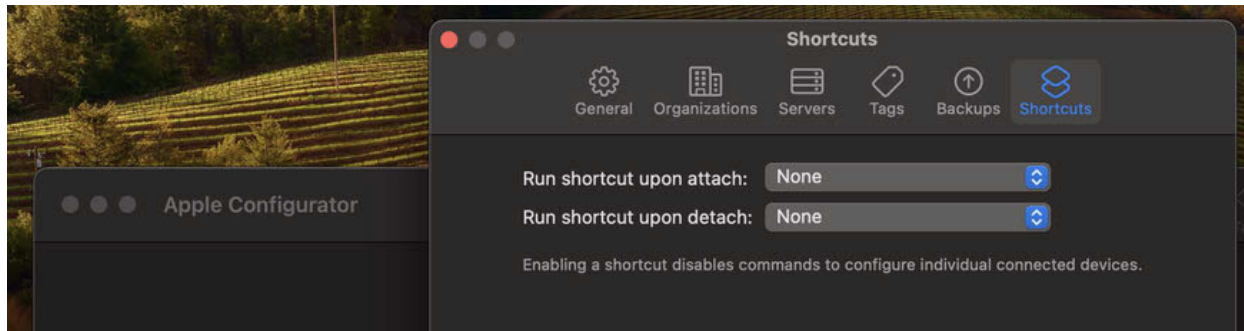


10. If necessary, depending on the workflow, complete the additional variables required for the Jamf Actions action
11. Name the workflow by clicking the text field in the top of the New Shortcuts window

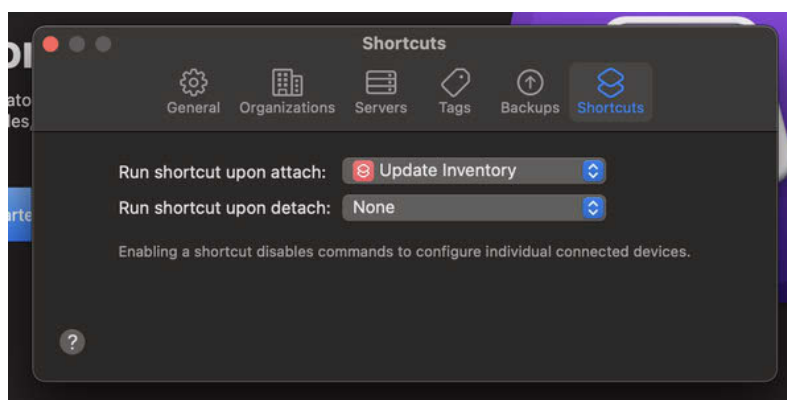


12. Open Apple Configurator
13. From the menu bar, click “Apple Configurator” and from the dropdown, “Settings”

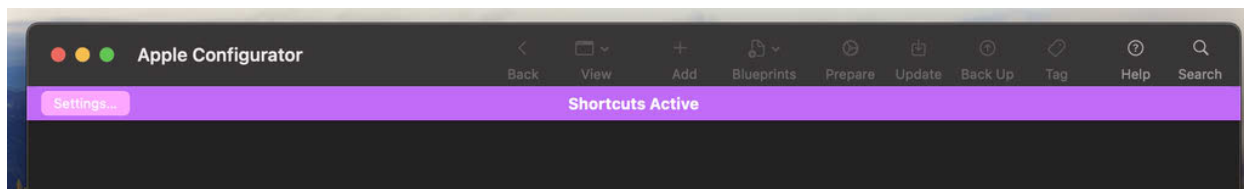
14. Click Shortcuts from the top menu



15. From the “Run shortcut when device connects” find the shortcut with the name given in step 10. You may be prompted to allow Apple Configurator access to control “Shortcuts Events”, be sure to grant access by clicking “Ok”.



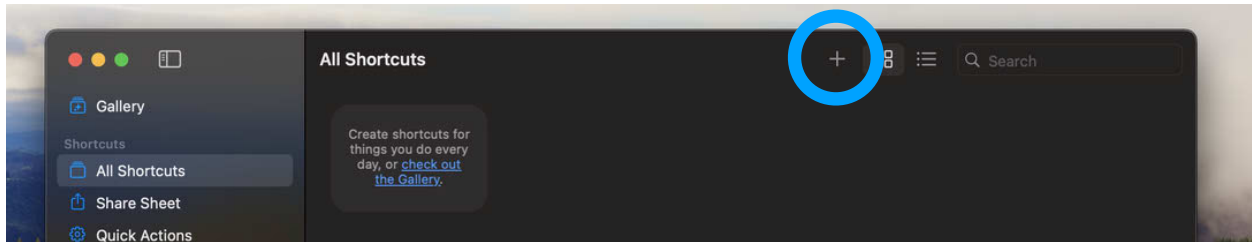
16. Closing that “Settings” window will reveal an illuminated bar at the top of the Apple Configurator window “Shortcuts Active” showing the workflow is ready for new devices to be plugged in



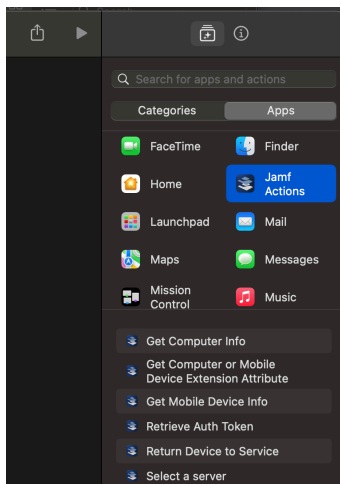
Note: Once you see the illuminated bar stating “Shortcuts Active”, the Shortcuts app nor Jamf Actions need to be open for the workflows to complete when devices are plugged in.

Selecting a server using Shortcuts

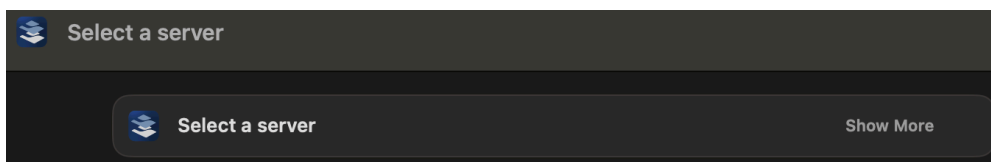
1. Open Shortcuts
2. In Shortcuts click “File” and “New Shortcut” OR the “+” sign in the upper right



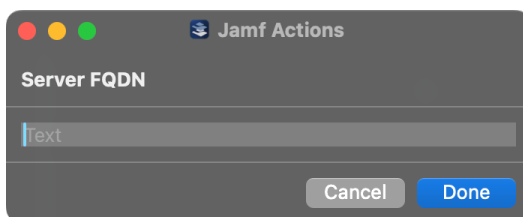
3. Navigate to the “Apps” tab and click “Jamf Actions” from the options



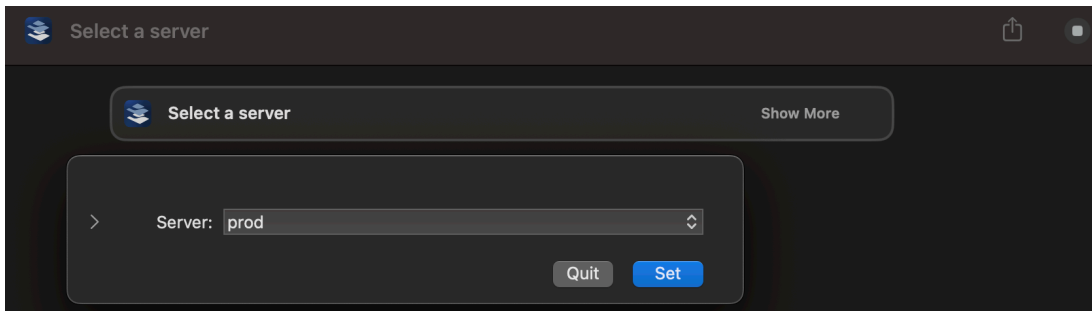
4. Once the list of actions for Jamf Actions appear, click and drag “Select a server” into the large area to the left that states “Add actions from the right to build your shortcut”



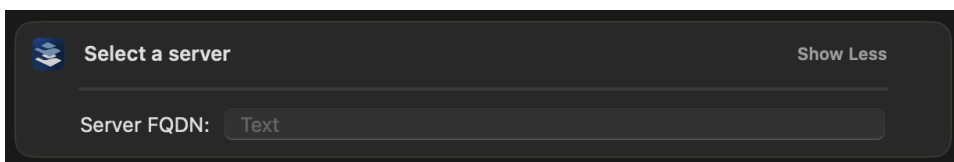
If you run the shortcut now you’ll be prompted to enter a server (FQDN) and that will be used (once). Note, the server must have previously been configured to use with Jamf Actions.



Leave the text field blank and you'll be prompted to select from a list servers.

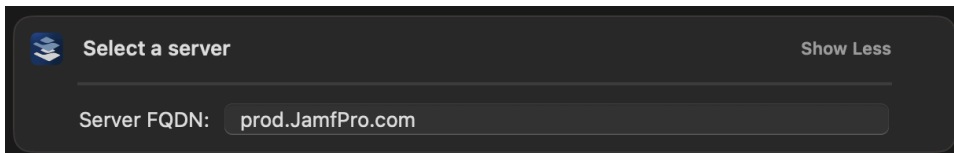


To avoid getting the prompt to enter the Server FQDN click “Show More” on the Open Jamf Actions to select a server short cut.

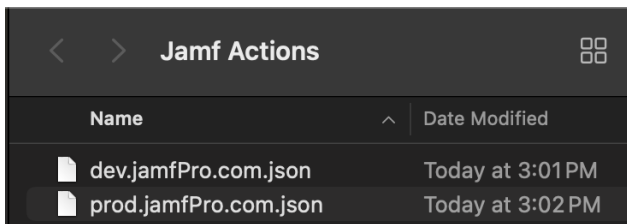


Enter some text, one character will do, and delete it so the field remains blank. Next time the shortcut is run you'll immediately be prompted to select a server.

If you want to use the same server each time the shortcut is run simply enter the FQDN of the server in the “Server FQDN” text field.

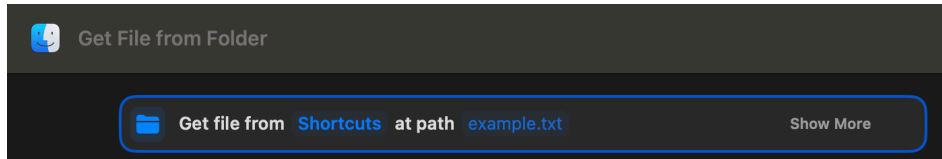


A server could also be selected (for repeated runs) using a configuration file located in “/Users/Shared/Jamf Actions”. These files are created automatically when servers are added using the Jamf Actions application.



Building the shortcut

1. Add the (Finder) action “Get File from Folder”.



- Click “Shortcuts” and browse to /Users/Shared/Jamf Actions.
- Click “example.txt” and type in the name of one of the available files, prod.jamfPro.com.json for example. The json extension is required.

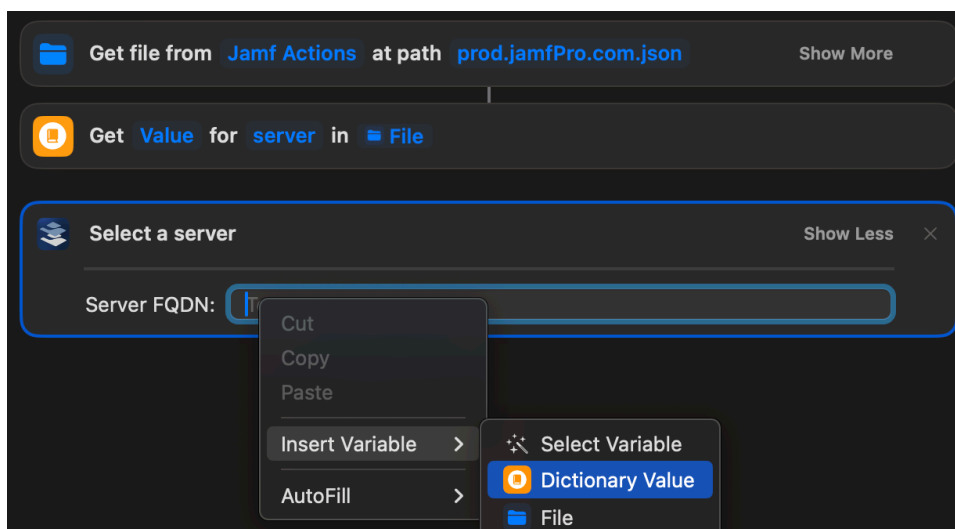
2. Add the (Finder) action “Get Dictionary Value”.



- Click “Key” and type in “server”, without quotes.

3. Add the (Jamf Actions) action “Select a server”

- Click “Show More”
- Right-click the Server FQDN text field
- Move the mouse over “Insert Variable” and select “Dictionary Value”



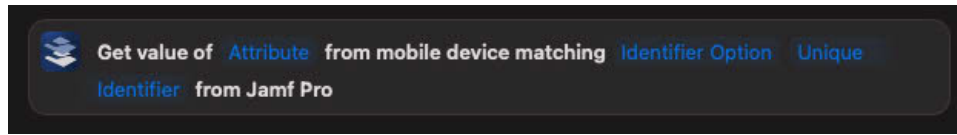
4. Lastly add the (Jamf Actions) action to run.

The screenshot shows a workflow configuration interface with four steps:

- Step 1:** Get file from **Jamf Actions** at path **prod.jamfPro.com.json**. A **Show More** link is on the right.
- Step 2:** Get **Value** for **server** in **File**.
- Step 3:** Select a server. A **Show Less** link is on the right. Below the title is a text field labeled **Server FQDN:** containing a **Dictionary Value** icon and the text **Dictionary Value**.
- Step 4:** Send remote management command **Management Command** to mobile device matching **Identifier Option** **Unique Identifier** in **Jamf Pro**. This step is highlighted with a blue border.

Get Mobile Device Info

Retrieve a value from a default inventory item of a mobile device enrolled in Jamf Pro.



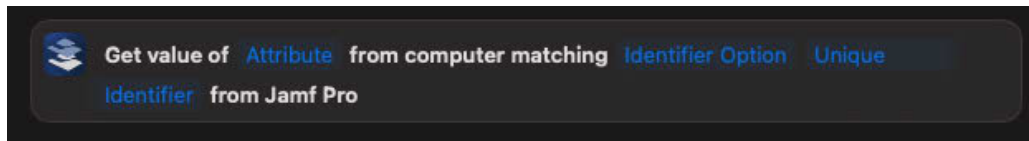
Attribute - An Attribute is a value of a default inventory item inside of a device record in Jamf Pro. Attribute values include: Jamf Pro ID, Name, Asset Tag, OS Type, OS Version, OS Build, Serial Number, IP Address, Wifi Mac Address, Bluetooth Mac Address, Model, Model Identifier, Model Number, Model Display, Battery Percentage, Site, Username, Full Name, Email Address, Position, Phone Number, Department, Building, Room

Identifier Option - If using Apple Configurator, select UDID. Otherwise, select Serial Number or Jamf Pro ID to complete this action.

Unique Identifier - If using Apple Configurator, follow above directions to extract the UDID into the workflow. If not using Apple Configurator, you may enter the value of the UDID, Serial Number or Jamf Pro ID.

Get Computer Info

Retrieve a value from a default inventory item of a computer enrolled in Jamf Pro.



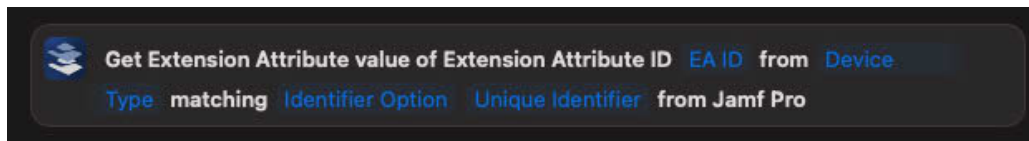
Attribute - An Attribute is a value of a default inventory item inside of a computer record in Jamf Pro. Attribute values include: Jamf Pro ID, Name, Network Adapter Type, Mac Address, Alternate Network Adapter Type, Alternate Mac Address, IP Address, Last Reported IP, Serial Number, UDID, Jamf Version, Barcode 1, Barcode 2, Asset Tag, Username, Full Name, Email Address, Position, Phone, Department, Building, Room, Model, Model Identifier, OS Version, OS Build, Processor Type, Processor Architecture, Disk Encryption Configuration, Site, Full JSON

Identifier Option - Use the UDID, Serial Number or Jamf Pro ID to complete this action.

Unique Identifier - Use the value of the computer's UDID, Serial Number or Jamf Pro ID to complete this action.

Get Computer or Mobile Device Extension Attribute

Retrieve an Extension Attribute value from a computer or mobile device enrolled in Jamf Pro.



EA ID - Extension Attribute ID

To retrieve the Extension Attribute (EA) ID:

1. Navigate to Settings in Jamf Pro
2. Under "Device Management" or "Computer Management" select "Extension attributes"
3. Find or create the desired Extension Attribute
4. From the found or created Extension Attribute, the EA ID number needed for this action is found in the URL bar

Example: Since the following URL presents id=1, the EA ID for the action is 1

<https://instance.jamfcloud.com/mobileDeviceExtensionAttributes.html?id=1&o=r>

Device Type - Choose from Computer or Mobile Device in order to complete this action.

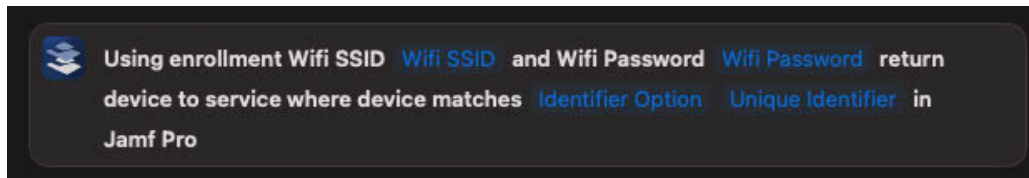
Identifier Option - If using Apple Configurator, use UDID. Otherwise, use the UDID, Serial Number or Jamf Pro ID to complete this action.

Unique Identifier - If using Apple Configurator, follow above directions to extract the UDID into the workflow. If not using Apple Configurator, you may enter the value of the UDID, Serial Number or Jamf Pro ID.

Return to Service

A device enrolled in Jamf Pro will erase and automatically re-enroll through Apple's Automated Device Enrollment using the supplied Wifi information.

Note: The returned result of this action is either "Success" or "Failed to complete. Verify UDID and authentication credentials and try again." When chaining actions, and this action succeeds, use "Success" without quotes as the value.



Wifi SSID - The network of the enrollment Wifi SSID must allow necessary communication to Jamf Pro and Apple servers which are required to complete enrollment.

Wifi Password - The network password of the corresponding enrollment Wifi SSID.

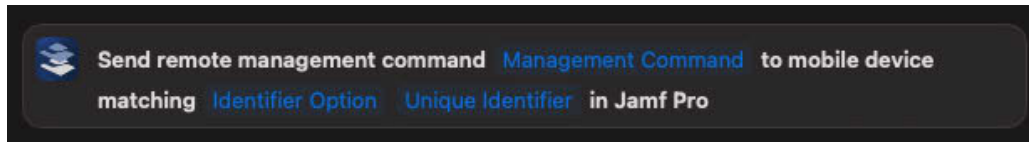
Identifier Option - If using Apple Configurator, use UDID. Otherwise, use the UDID, Serial Number or Jamf Pro ID to complete this action.

Unique Identifier -If using Apple Configurator, follow above directions to extract the UDID into the workflow. If not using Apple Configurator, you may enter the value of the UDID, Serial Number or Jamf Pro ID.

Send Mobile Device Management Command

Send a Remote Management Command to a device enrolled in Jamf Pro.

Note: The returned result of this action is either "Success" or "Failed to complete. Verify UDID and authentication credentials and try again." When chaining actions, and this action succeeds, use "Success" without quotes as the value.



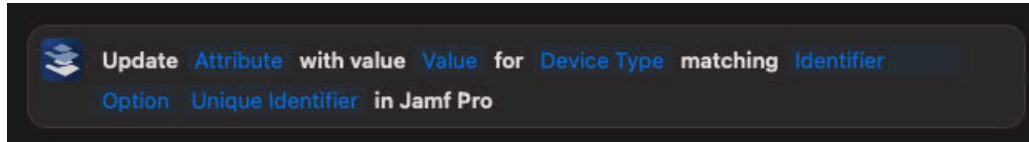
Management Command - Available Remote Management Commands include: Erase Device, Clear Passcode, Unmanage Device, Update Inventory, Clear Restrictions Password, Enable Data Roaming, Disable Data Roaming, Enable App Analytics (Shared Device), Disable App Analytics (Shared Device), Enable Diagnostic Submission (Shared Device), Disable Diagnostic Submission (Shared Device), Enable Bluetooth, Disable Bluetooth, Enable Personal Hotspot, Disable Personal Hotspot, Blank Push, Shut Down Device, Restart Device

Identifier Option - If using Apple Configurator, use UDID. Otherwise, use the UDID, Serial Number or Jamf Pro ID to complete this action.

Unique Identifier - If using Apple Configurator, follow above directions to extract the UDID into the workflow. If not using Apple Configurator, you may enter the value of the UDID, Serial Number or Jamf Pro ID.

Update Computer or Mobile Device Attribute

Update the value of a default inventory item of a computer or mobile device enrolled in Jamf Pro.



Attribute - An Attribute is a value of a default inventory item inside of a device record in Jamf Pro. Attribute values include: Asset Tag, Username, Email Address, Full Name, Phone Number, Room, Department, Building

Value - The desired value of the attribute chosen

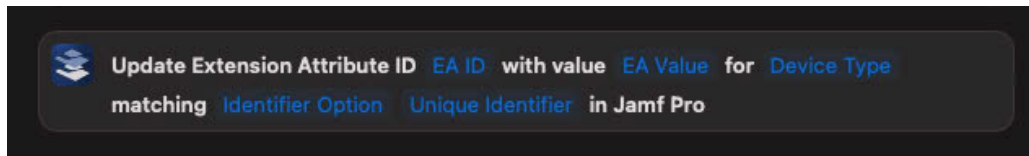
Device Type - Choose from Computer or Mobile Device in order to complete this action.

Identifier Option - If using Apple Configurator, select UDID. Otherwise, select Serial Number or Jamf Pro ID to complete this action.

Unique Identifier - If using Apple Configurator, follow above directions to extract the UDID into the workflow. If not using Apple Configurator, you may enter the value of the UDID, Serial Number or Jamf Pro ID.

Update Computer or Mobile Device Extension Attribute

Update the Extension Attribute value of a computer or mobile device enrolled in Jamf Pro.



EA ID - Extension Attribute ID

To retrieve the Extension Attribute (EA) ID:

1. Navigate to Settings in Jamf Pro
2. Under "Device Management" or "Computer Management" select "Extension attributes"
3. Find or create the desired Extension Attribute
4. From the found or created Extension Attribute, the EA ID number needed for this action is found in the URL bar

Example: Since the following URL presents id=1, the EA ID for the action is 1

<https://instance.jamfcloud.com/mobileDeviceExtensionAttributes.html?id=1&o=r>

Value - The desired value of the attribute chosen

Device Type - Choose from Computer or Mobile Device in order to complete this action.

Identifier Option - If using Apple Configurator, use UDID. Otherwise, use the UDID, Serial Number or Jamf Pro ID to complete this action.

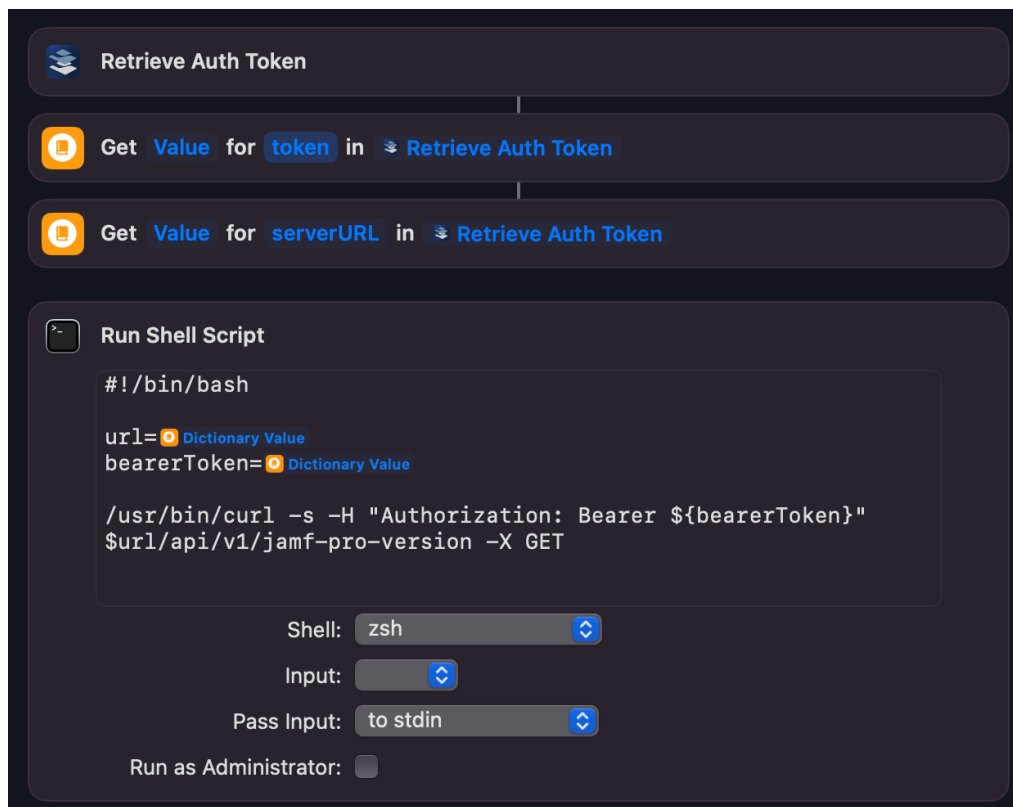
Unique Identifier - If using Apple Configurator, follow above directions to extract the UDID into the workflow. If not using Apple Configurator, you may enter the value of the UDID, Serial Number or Jamf Pro ID.

(Advanced) Retrieve Auth Token

Authentication mechanism to be used with custom action in Shortcuts.



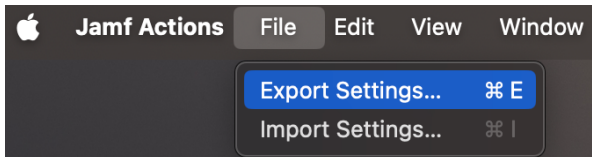
JSON value is retrieved using the supplied server info and credentials added during the configuration of Jamf Actions. This can be used in a custom action including a script like the following:



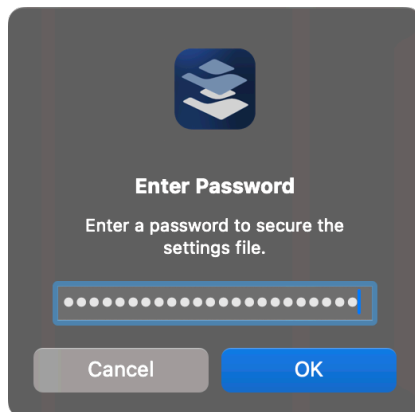
Exporting and Importing Jamf Actions Settings

If you are in an environment where more than one Mac is going to be using Jamf Actions you can easily export the list of servers, along with their credentials, and import them on another machine.

Exporting - From the Jamf Actions menu bar select File -> Export Settings... (⌘-E)

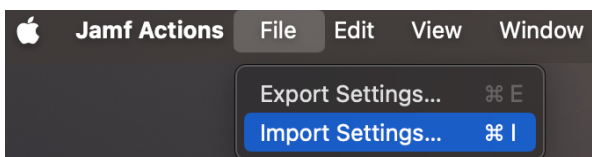


After selecting the name and location for the file you will be prompted for a password to secure the file. This password will need to be supplied when importing the file.



Importing - From the Jamf Actions menu bar select File -> Import Settings... (⌘-I)

Only files with an extension of “jas” can be selected.



Important: Although the exported settings file is encrypted, it should still be carefully guarded to prevent bad actors from potentially decrypting the file and gaining access to the credentials it contains.