

# Lightspeed Smart Agent Deployment (macOS 2023)

## Description

Need to deploy Lightspeed Smart Agent along with your configurations. FileWave has got you covered in this step-by-step guide to creating the required Filesets to deploy to your macOS devices. Be sure that you have access to your administrative account on [relay.school.com](https://relay.school.com).



If you are using the new method with Lightspeed Certificate Manager please review: [Lightspeed Smart Agent Deployment \(macOS v2.3.1+ using Certificate Manager\)](#)

## Ingredients

- FileWave Central
- Lightspeed Smart Agent DMG installer
- Lightspeed Smart Agent PKG installer
- Lightspeed mac deploy script
- Lightspeed install script
- Lightspeed certificate



Web Content Filter - In creating a Web Content Filter within FileWave Central it changes the UDID and is unsuccessful in deployment. The issue can be resolved by re-creating the Web Content Filter in FileWave Anywhere as a workaround. The issue should be resolved in the next release. See [Known Issues](#)

## Download Lightspeed Relay Filter Agent

1. Login to your Lightspeed Filter account at [relay.school.com](https://relay.school.com)
  1. Navigate to Settings > Software
  2. Choose Lightspeed Filter
  3. Select the Mac tab
  4. Select the version of the Relay Filter Agent by clicking on the download icon
  5. Place the downloaded SmartAgent.dmg into your Downloads Folder

## Download the macOS deploy script

1. Download the mac\_deploy.sh script, found here: [mac\\_deploy.sh](#)
2. Place the downloaded mac\_deploy.sh script into your Downloads
3. Unzip the downloaded mac\_deploy.sh script
4. Open Terminal to run the script

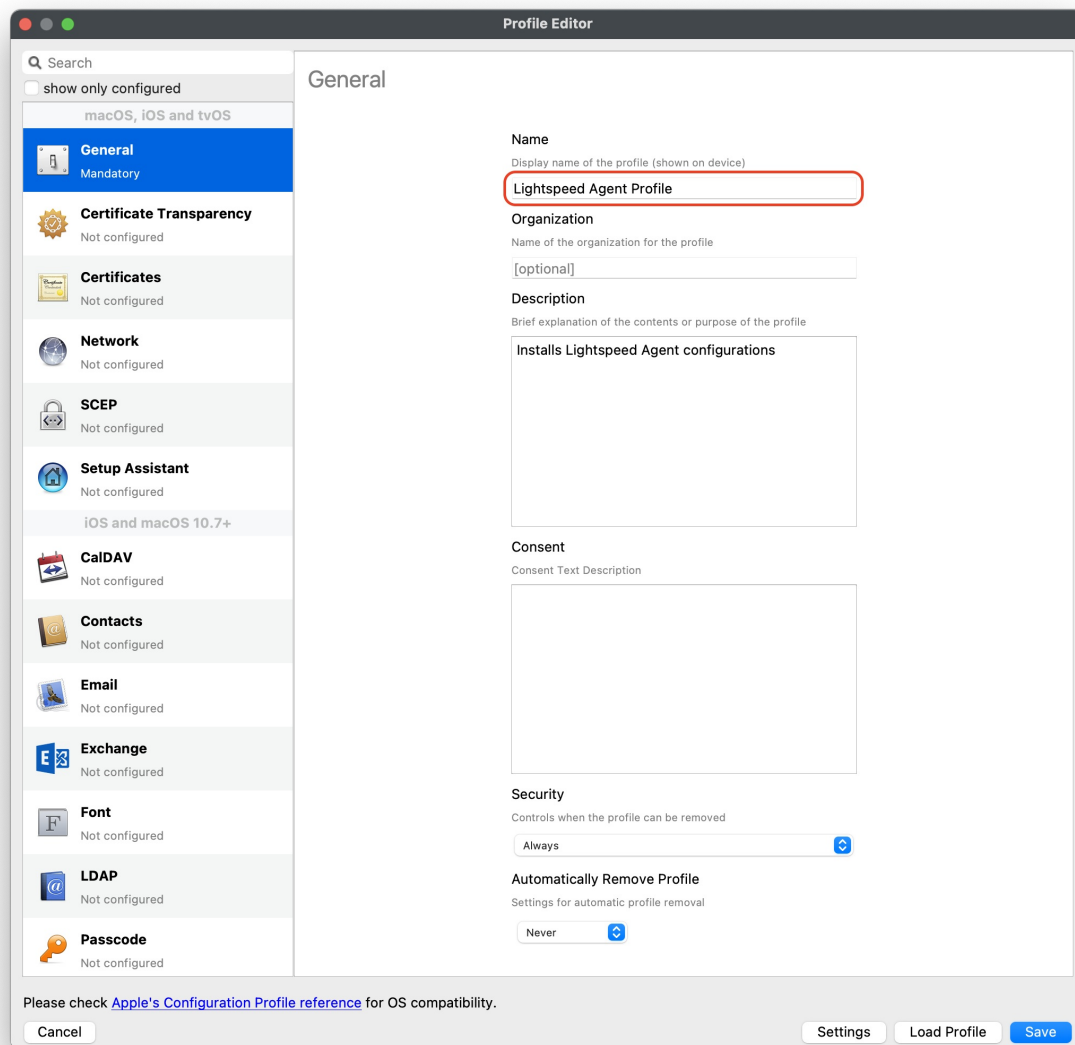
```
# enter as root
$ sudo -s
# navigate to your Downloads folder
$ cd ~/Downloads
# run the script to create three files on the Desktop
$ ./mac_deploy.sh
```

5. Once the script has been executed, it has created three files on your Desktop; ca.cer, deployment.zip and SmartAgent.pkg

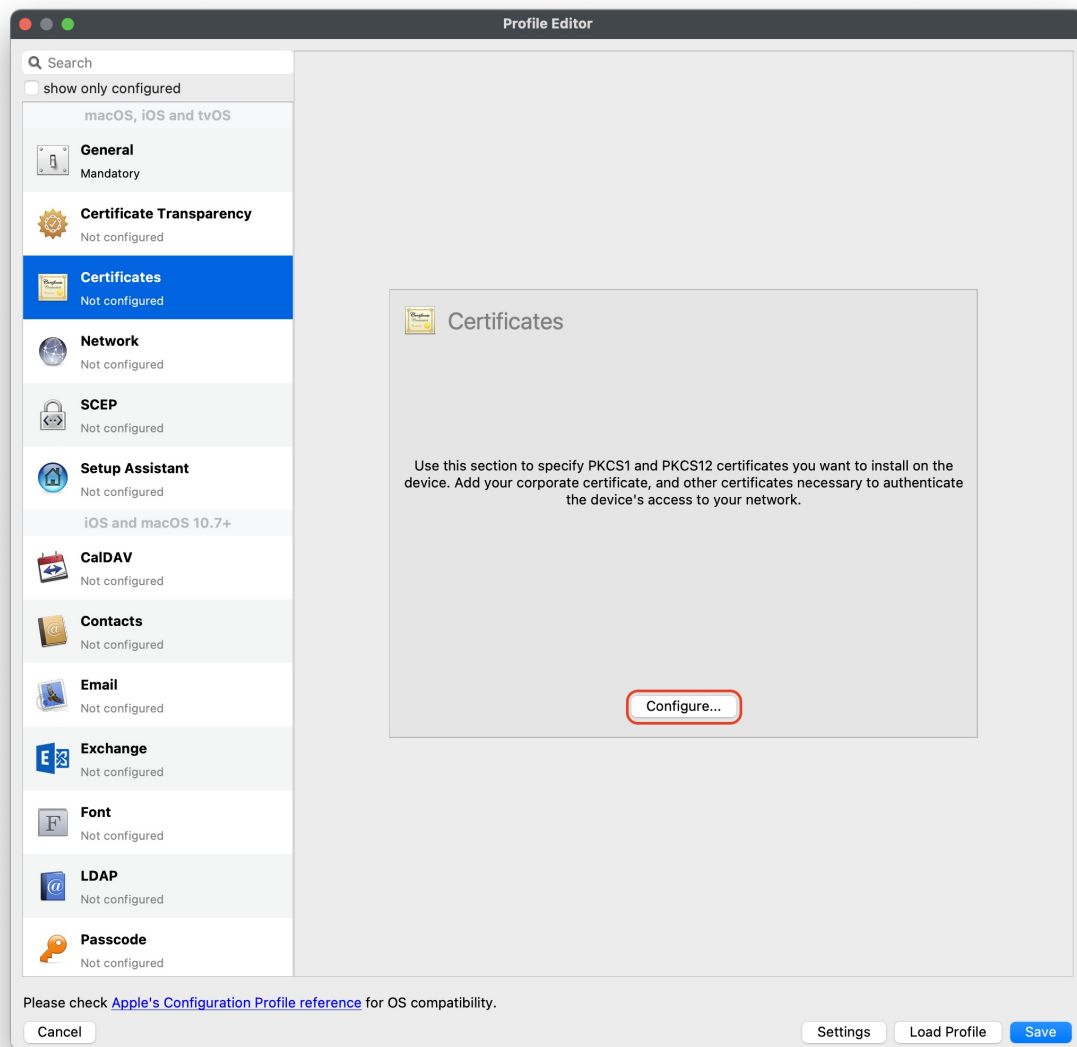
Note: Be sure both SmartAgent.dmg and mac\_deploy.sh are in the same directory, i.e. Downloads folder for the mac\_deploy script to successfully create the deployment files and certificate.

## Create the Configuration Profile

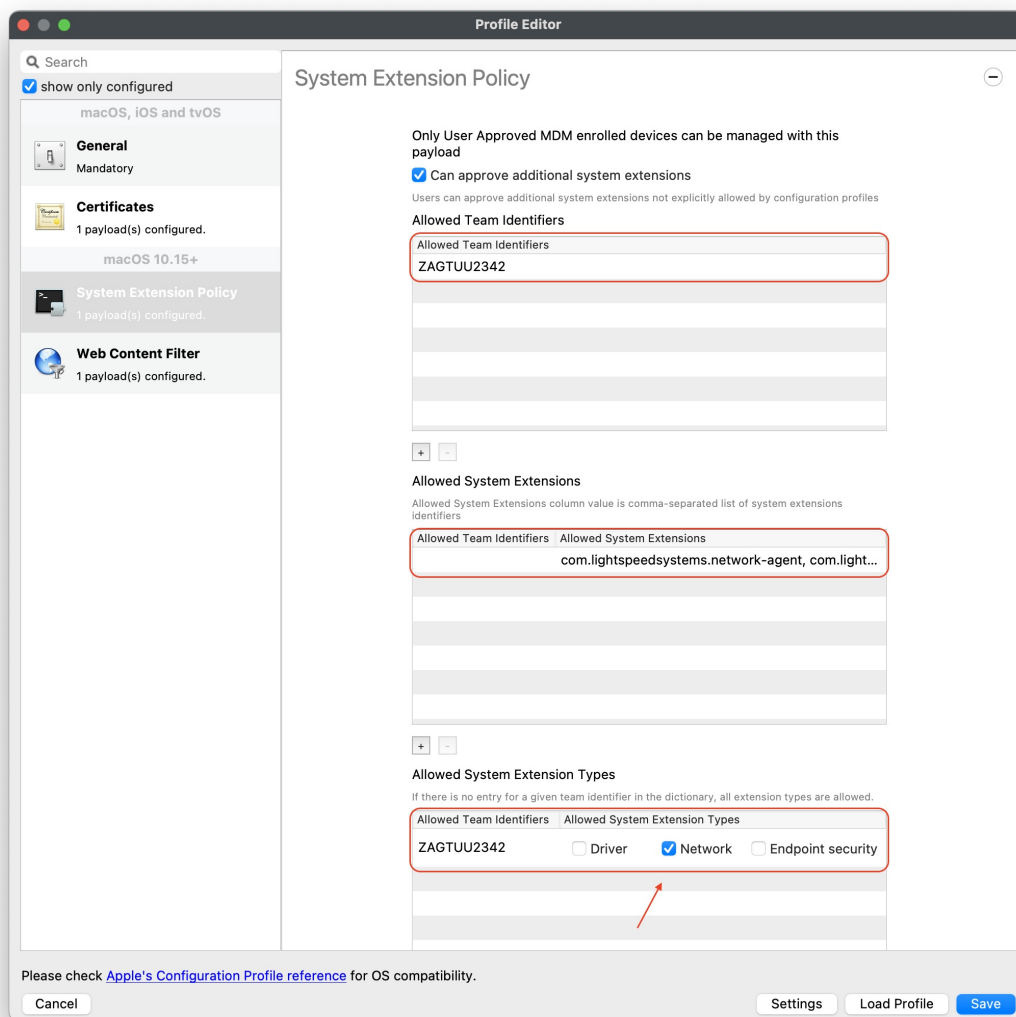
1. Open FileWave Central or FileWave Anywhere
2. Navigate to Filesets > Select New Desktop Fileset > Click on Profile
3. Enter the name of the Profile: General > Name: Lightspeed Agent Profile



4. Select Certificates payload to add your ca.cer certificate



5. Navigate to System Extension Policy payload, add and enter in the following:
  1. Click + to add Allowed Team Identifiers:  
Team Identifier: ZAGTUU2342
  2. Click + to add Allowed System Extensions:  
1st Allowed System Extensions: com.lightspeedsystems.network-agent  
Enter add 2nd Allowed System Extensions with comma after 1st Allowed System Extensions  
2nd Allowed System Extensions: com.lightspeedsystems.network-agent.network-extension
  3. Click + to add Allowed System Extension Types and check box for Network:  
Team Identifier: ZAGTUU2342



6. Navigate to Web Content Filter and enter in the following:
  1. Filter Name: Lightspeed Agent
  2. Identifier: com.lightspeedsystems.network-agent
  3. Filter Options: Socket Traffic Only
  4. Socket Filter Bundle Identifier: com.lightspeedsystems.network-agent.network-extension
  5. Socket Filter Designated Requirement: anchor apple generic and identifier "com.lightspeedsystems.network-agent.network-extension" and (certificate leaf[field.1.2.840.113635.100.6.1.9] /\* exists / or certificate 1[field.1.2.840.113635.100.6.2.6] / exists / and certificate leaf[field.1.2.840.113635.100.6.1.13] / exists \*/ and certificate leaf[subject.OU] = ZAGTUU2342)



Profile Editor

Search

show only configured

macOS 10.14+

Security & Privacy

Not configured

macOS 10.15+

Associated Domains

Not configured

System Extension Policy

1 payload(s) configured.

Web Content Filter

1 payload(s) configured.

tvOS

AirPlay Security

Not configured

Conference Room Display

Not configured

Home Screen Layout

Not configured

Restrictions

Not configured

Single App Mode

Not configured

TV Remote

Not configured

iOS 13.0+ and macOS 10.15+

Single Sign-On Extensions

Not configured

iOS 14.0+ and macOS 11.0+

DNS Settings

Not configured

Web Content Filter (supervised only)

Filter Name

Display name of the filter in the app and on the device

Lightspeed Agent

Identifier

Identifier for the filter plug-in

com.lightspeedsystems.network-agent

Service Address

Host name or IP Address or URL for the service

[optional]

Organization

Organization for the filter plug-in

[optional]

User Name

User name for authenticating to the service

[optional]

Password

Password for authenticating to the service

[optional]

Certificate

Certificate for authenticating to the service

No certificate payload is configured

Filter Options

Specify the type(s) of traffic that should be filtered

Socket Traffic Only

Socket Filter Bundle Identifier

Bundle identifier of the socket filter provider system extension

com.lightspeedsystems.network-agent.network-extension

Socket Filter Designated Requirement

Designated requirement of the socket filter provider system extension

anchor apple generic and identifier "com.lightspeedsystems.network-agent"

Network Filter Bundle Identifier

Please check [Apple's Configuration Profile reference](#) for OS compatibility.

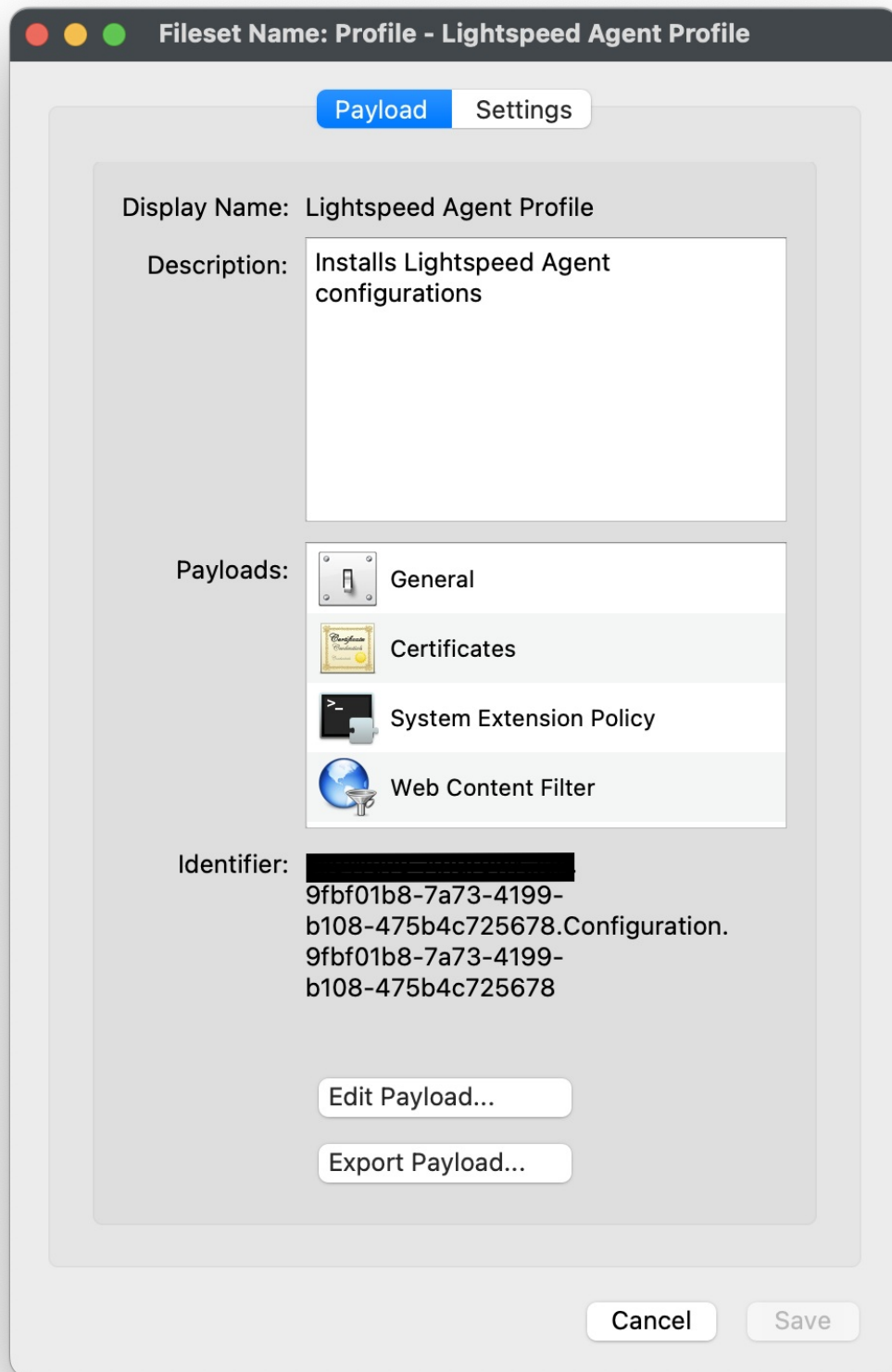
Cancel

Settings

Load Profile

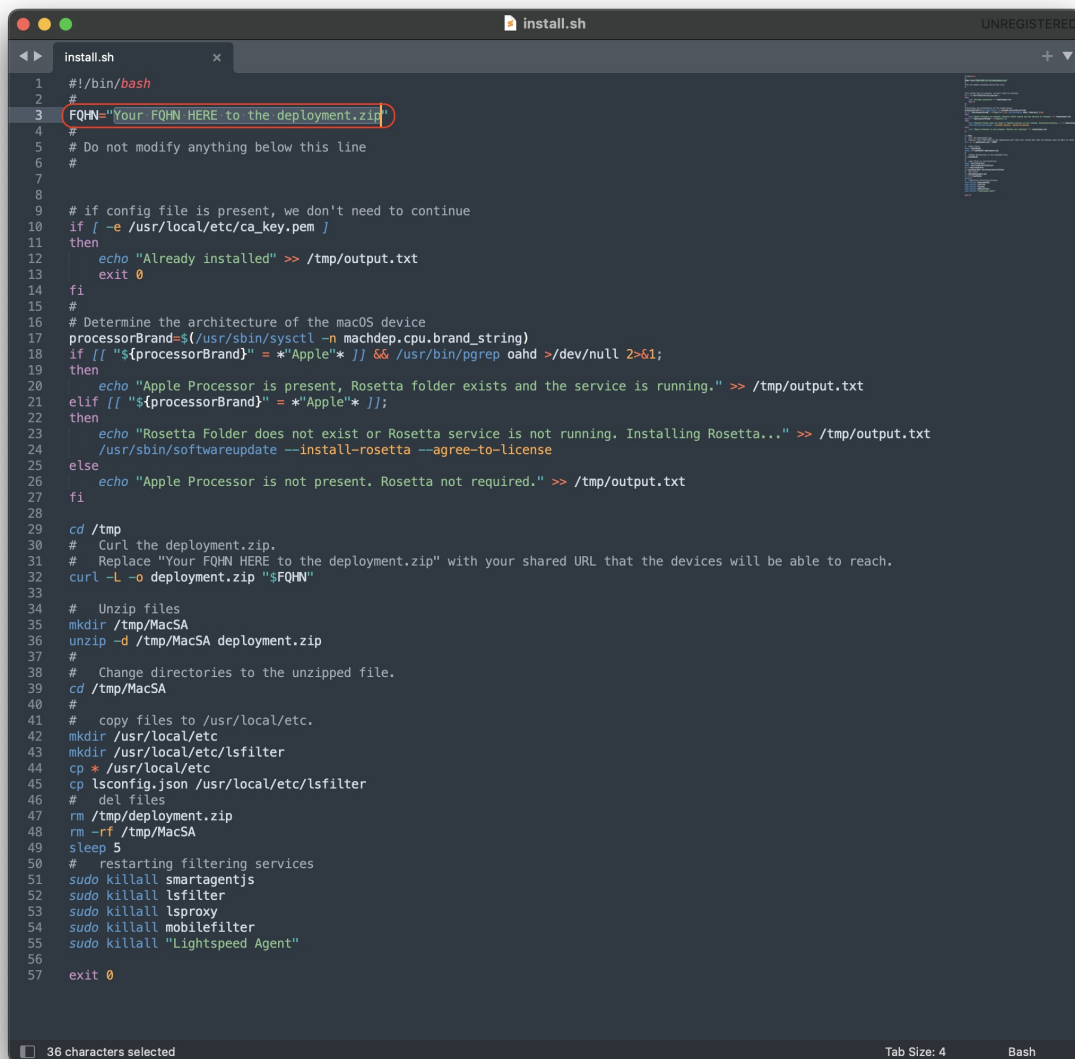
Save

- The completed configuration profile will have three payloads; these include: Certificates, System Extension Policy and Web Content Filter




## Editing the Install script

1. Download and unzip the Install script, found here: [install\\_lightspeed.sh](https://www.lightspeedhq.com/install_lightspeed.sh)
2. Open the install.sh in TextEdit or compatible Text Editor, for example Sublime Text
3. Enter in your URL to the hosted file in line 3 of the Install Script; between the quotes, where it says, "Your FQHN HERE to the deployment.zip"



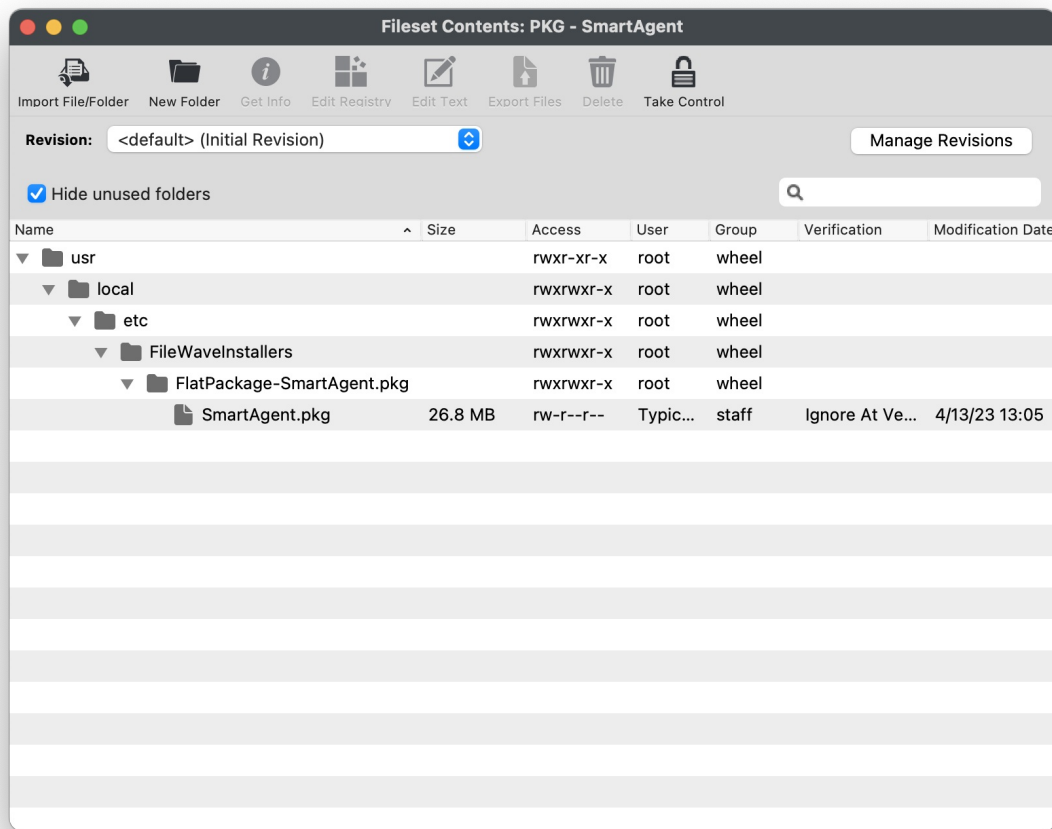
```
1 #!/bin/bash
2 #
3 FQHN="Your FQHN HERE to the deployment.zip"
4 #
5 # Do not modify anything below this line
6 #
7 #
8 #
9 # if config file is present, we don't need to continue
10 if [ -e /usr/local/etc/ca_key.pem ]
11 then
12     echo "Already installed" >> /tmp/output.txt
13     exit 0
14 fi
15 #
16 # Determine the architecture of the macOS device
17 processorBrand=$(/usr/sbin/sysctl -n machdep.cpu.brand_string)
18 if [[ "${processorBrand}" = *"Apple"* ]] && /usr/bin/pgrep oahd >/dev/null 2>&1;
19 then
20     echo "Apple Processor is present, Rosetta folder exists and the service is running." >> /tmp/output.txt
21 elif [[ "${processorBrand}" = *"Apple"* ]];
22 then
23     echo "Rosetta Folder does not exist or Rosetta service is not running. Installing Rosetta..." >> /tmp/output.txt
24     /usr/sbin/softwareupdate --install-rosetta --agree-to-license
25 else
26     echo "Apple Processor is not present. Rosetta not required." >> /tmp/output.txt
27 fi
28 #
29 cd /tmp
30 # Curl the deployment.zip.
31 # Replace "Your FQHN HERE to the deployment.zip" with your shared URL that the devices will be able to reach.
32 curl -L -o deployment.zip "$FQHN"
33 #
34 # Unzip files
35 mkdir /tmp/MacSA
36 unzip -d /tmp/MacSA deployment.zip
37 #
38 # Change directories to the unzipped file.
39 cd /tmp/MacSA
40 #
41 # copy files to /usr/local/etc.
42 mkdir /usr/local/etc
43 mkdir /usr/local/etc/lsfilter
44 cp * /usr/local/etc
45 cp lsconfig.json /usr/local/etc/lsfilter
46 # del files
47 rm /tmp/deployment.zip
48 rm -rf /tmp/MacSA
49 sleep 5
50 # restarting filtering services
51 sudo killall smartagentjs
52 sudo killall lsfilter
53 sudo killall lsproxy
54 sudo killall mobilefilter
55 sudo killall "Lightspeed Agent"
56 #
57 exit 0
```

4. Save the changes to the install.sh script

 Note: The deployment.zip file created on the desktop must be hosted for the deployment to succeed. (This can be accomplished with Google Drive (may use [Google Drive Direct Link Generator](#)), Microsoft OneDrive, Amazon S3, etc.) Be sure the deployment.zip file is accessible for the install.sh script to download successfully, otherwise this will not complete the installation of the Lightspeed Filter.

## Import the Smart Agent PKG

1. Navigate to Filesets > Create New Desktop Fileset > Select MSI / PKG
2. Navigate to your downloaded SmartAgent.pkg to upload into the Fileset
3. Please wait a few moments for the PKG installer to upload into your FileWave server



4. After successfully uploading, highlight the Fileset > Select Properties
5. Under the Requirements tab, check the box Platform and check macOS only, then under System Version and checkboxes only for macOS 12.x and 13.x

Fileset Name: PKG - SmartAgent

Revision: <default> (Initial Revision) Manage Revisions

Properties Requirements Dependencies Delete Files Kiosk

☒ Platform

☐ Windows

☒ macOS

☐ Android

☐ Architecture

☒ Intel ☒ 64 bit

☒ Apple Silicon ☒ 32 bit

☐ Min. Memory

0 MB

☒ System Version

macOS	Windows	Windows Server	Android	Use/install on newer OS versions
<input type="checkbox"/> 10.7.x	<input type="checkbox"/> XP	<input type="checkbox"/> 2008 R2	<input type="checkbox"/> 4.1	
<input type="checkbox"/> 10.8.x	<input type="checkbox"/> Vista	<input type="checkbox"/> 2012	<input type="checkbox"/> 4.2	
<input type="checkbox"/> 10.9.x	<input type="checkbox"/> 7	<input type="checkbox"/> 2012 R2	<input type="checkbox"/> 4.3	
<input type="checkbox"/> 10.10.x	<input type="checkbox"/> 8	<input type="checkbox"/> 2016	<input type="checkbox"/> 4.4	
<input type="checkbox"/> 10.11.x	<input type="checkbox"/> 8.1	<input type="checkbox"/> 2019	<input type="checkbox"/> 5.0	
<input type="checkbox"/> 10.12.x	<input type="checkbox"/> 10.0	<input type="checkbox"/> 2022	<input type="checkbox"/> 5.1	
<input type="checkbox"/> 10.13.x	<input type="checkbox"/> 11.0		<input type="checkbox"/> 6.0	
<input type="checkbox"/> 10.14.x			<input type="checkbox"/> 7.0	
<input type="checkbox"/> 10.15.x			<input type="checkbox"/> 7.1	
<input type="checkbox"/> 11.x				
<input checked="" type="checkbox"/> 12.x				
<input checked="" type="checkbox"/> 13.x				

☐ Evaluate requirements on change and uninstall active Fileset if they failed

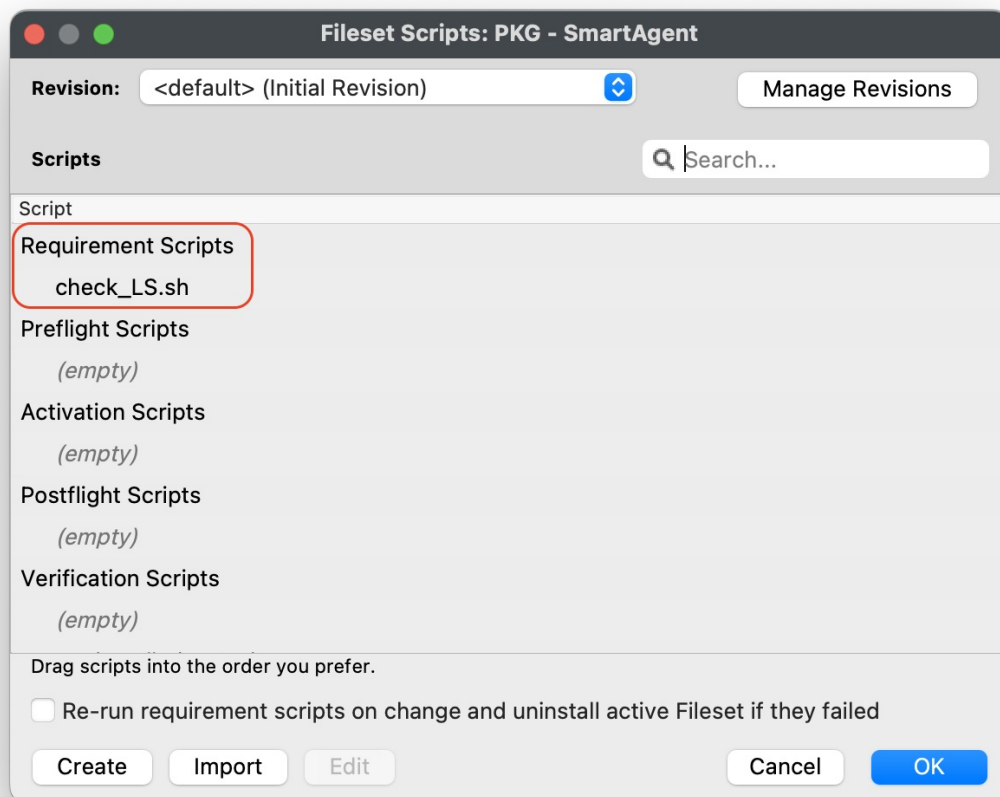
Cancel OK

6. Click OK to save

**Note:** If all of your devices are not on macOS 12 or greater, you will want to set the Requirements for the Fileset for macOS 12 and above

## Editing the Smart Agent PKG Fileset

1. Highlight the newly created Fileset with your Smart Agent PKG
2. Click on Script in the menu to open Script dialogue window
3. Highlight Requirement Scripts and click on the Create button



4. Label script, check\_LS.sh
5. Copy and paste the entire check profile script below:

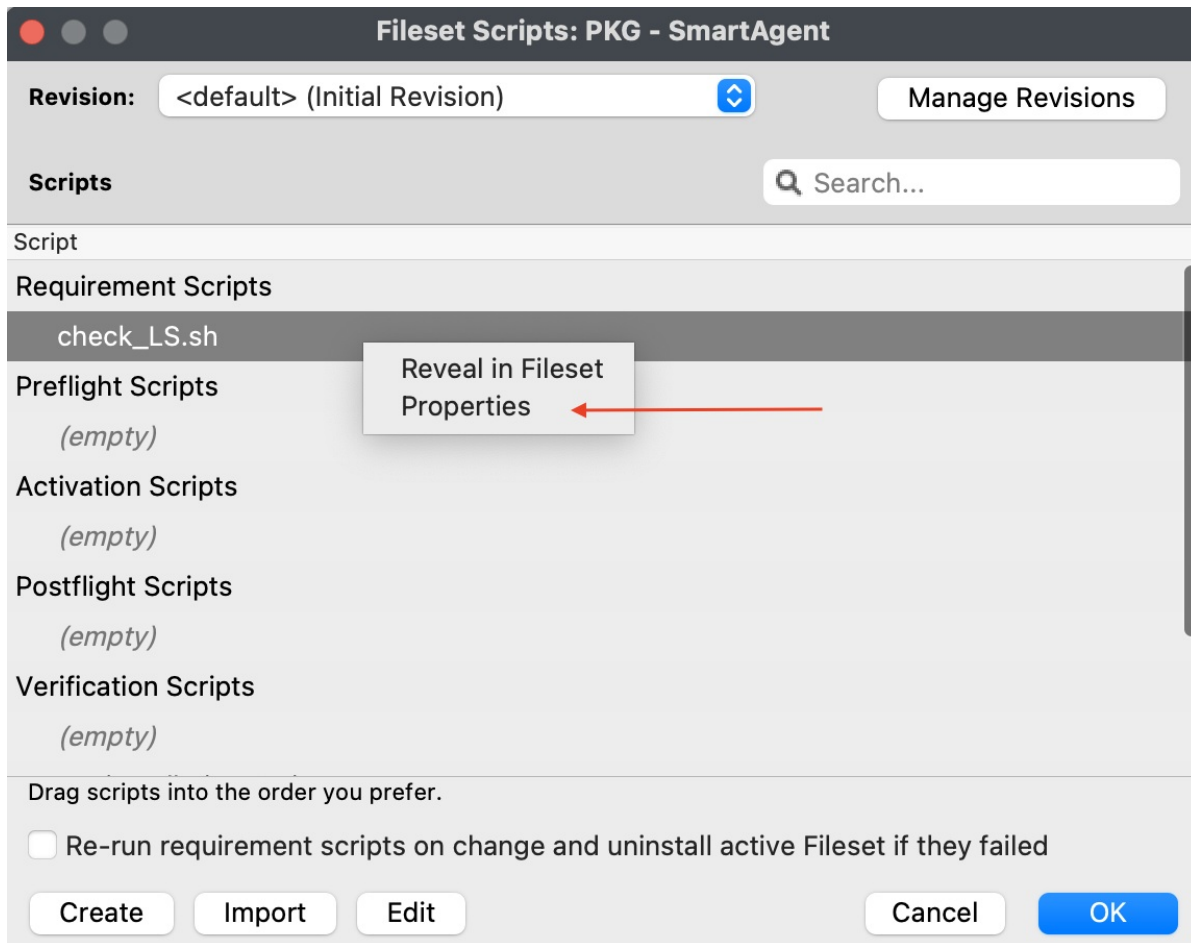
```
#!/bin/zsh

found_profile=""

while [ $# -gt 0 ]
do
    found_profile=$(profiles list all | awk -v search=$1 '$0 ~ search {print $NF}')
    if [ ! -z $found_profile ]
    then
        echo "Found installed profile: $found_profile"
        exit 0
    else
        echo "Did not find $1"
    fi
    shift
done


exit 1
```

6. Click OK to save the script
7. Highlight the check\_LS.sh and right-click to select Properties



8. Select the Executable tab, under the Launch Arguments tab, click on the + button to add your Lightspeed Agent Profile's Identifier (found by double-clicking on your Lightspeed Agent Profile)

Info - PKG - SmartAgent : check\_LS.sh

 check\_LS.sh

Kind: File

Created: Mon Jul 24 2023 06:14 pm

Modified: Mon Jul 24 2023 06:14 pm

PermissionsACLsVerificationExecutableFlags

Execution Control

☒ Execute at requirements step

☐ Interactive (ignored in non Windows™ clie)

☒ Non-interactive (background)

☒ Wait for executable to finish

Wait for: Infinite

Launch ArgumentsEnvironment Variables

BundleID


+

-

The values of the command line arguments are set just before the script execution.  
To use an inventory field value to set a command line argument value. use the svntax

Note: Log files will be collected for synchronous non-

Apply

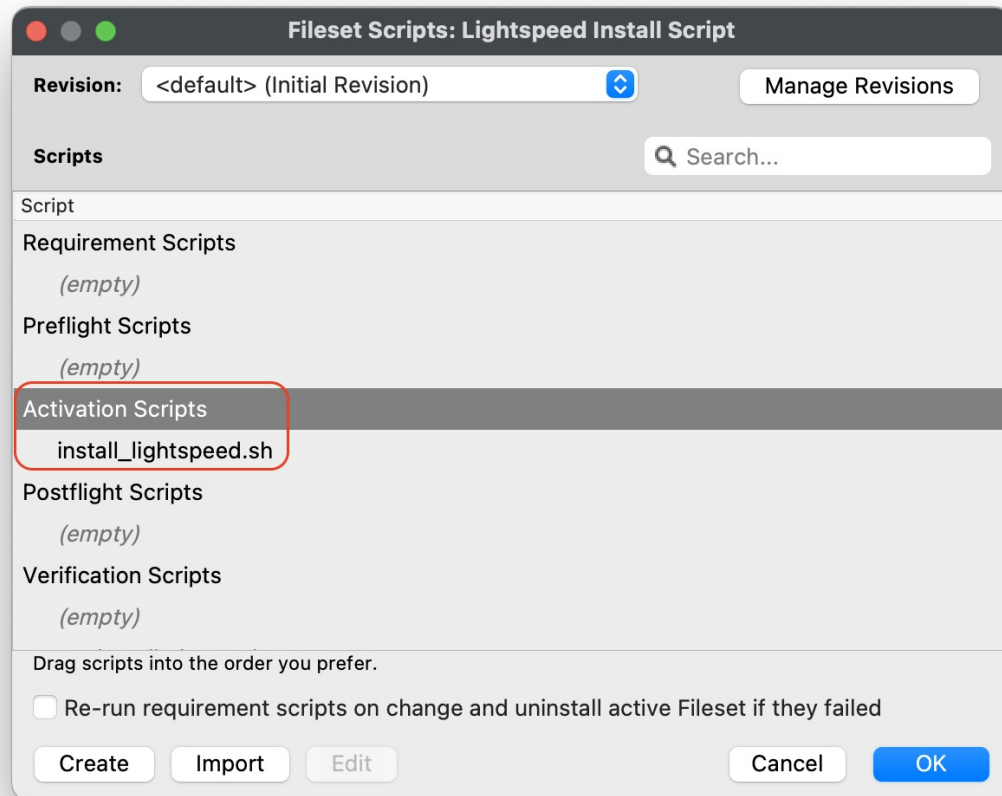
 Reserved by the parent Fileset



10. Close out Properties of the Requirement Script
11. Click OK to save changes to Smart Agent PKG Fileset

## Creating the Installation Fileset

1. Navigate to Filesets > Create New Desktop Fileset > Empty Fileset > label Lightspeed Install Script
2. Click on Script in the menu to open the Script dialogue window
3. Highlight Activation Scripts and click on the Create button



4. Label script, install\_lightspeed.sh
5. Copy and paste the entire install.sh script that you saved your URL to hosted file from previous step on Editing the Install Script.



11. Click OK to save script
12. Highlight Requirement Scripts and click on Create button
13. Label script, check\_LS\_profile.sh
14. Copy and paste the entire check profile script below:

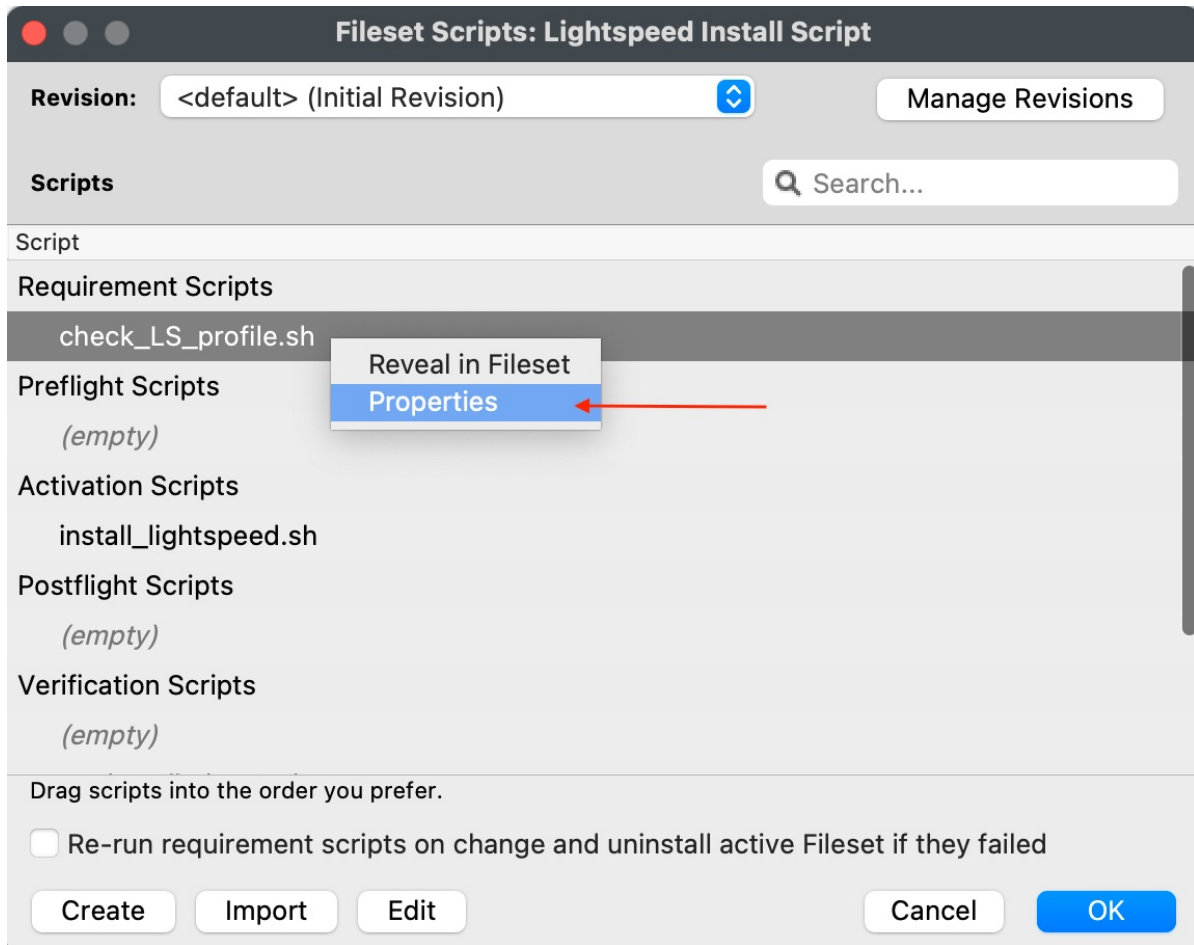
```
#!/bin/zsh

found_profile=""

while [ $# -gt 0 ]
do
    found_profile=$(profiles list all | awk -v search=$1 ' $0 ~ search {print $NF}')
    if [ ! -z $found_profile ]
    then
        echo "Found installed profile: $found_profile"
        exit 0
    else
        echo "Did not find $1"
    fi
    shift
done

exit 1
```

15. Click OK to save the script
16. Highlight the check\_LS\_profile.sh and right-click to select Properties



17. Select the Executable tab, under the Launch Arguments tab, click on the + button to add your Lightspeed Agent Profile's Identifier (found by double-clicking on your Lightspeed Agent Profile)



check\_LS\_profile.sh

**Kind:** File

**Created:** Fri Apr 14 2023 04:06 pm

**Modified:** Fri Apr 14 2023 04:06 pm

Permissions

ACLs

Verification

**Executable**

Flags

#### Execution Control

☒ Execute at requirements step

- ☐ Interactive (ignored in non Windows™ client)  
☒ Non-interactive (background)

☒ Wait for executable to finish

Wait for: Infinite

**Launch Arguments**

Environment Variables

Bundle.Identifier.lan.9fbf01b8-7a73-4199-b108-475

+

-

The values of the command line arguments are set just before the script execution.  
To use an inventory field value to set a command line argument value, use the svntax


**Note:** Log files will be collected for synchronous non-

Apply

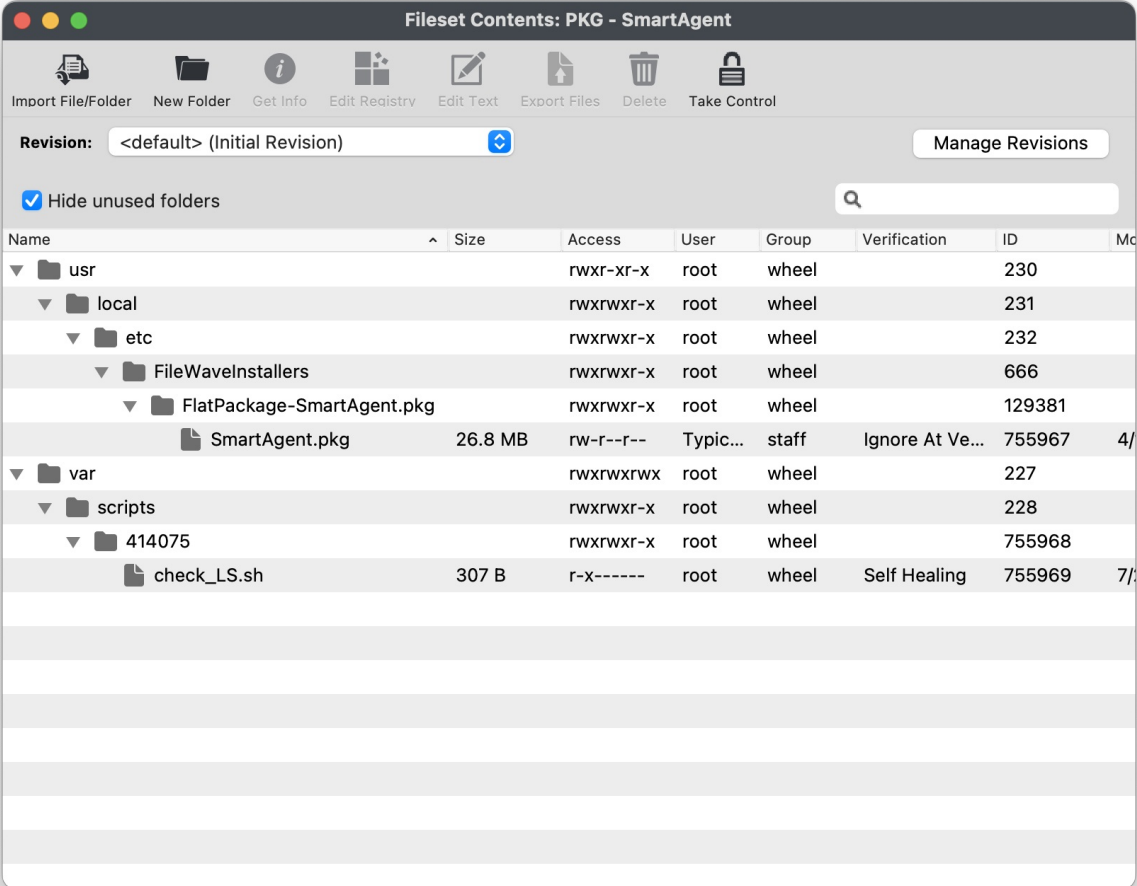


Reserved by the parent Fileset

18. Click Apply to save changes
19. Close out Properties of the Requirement Script
20. Click OK to save changes to Lightspeed Installation Fileset

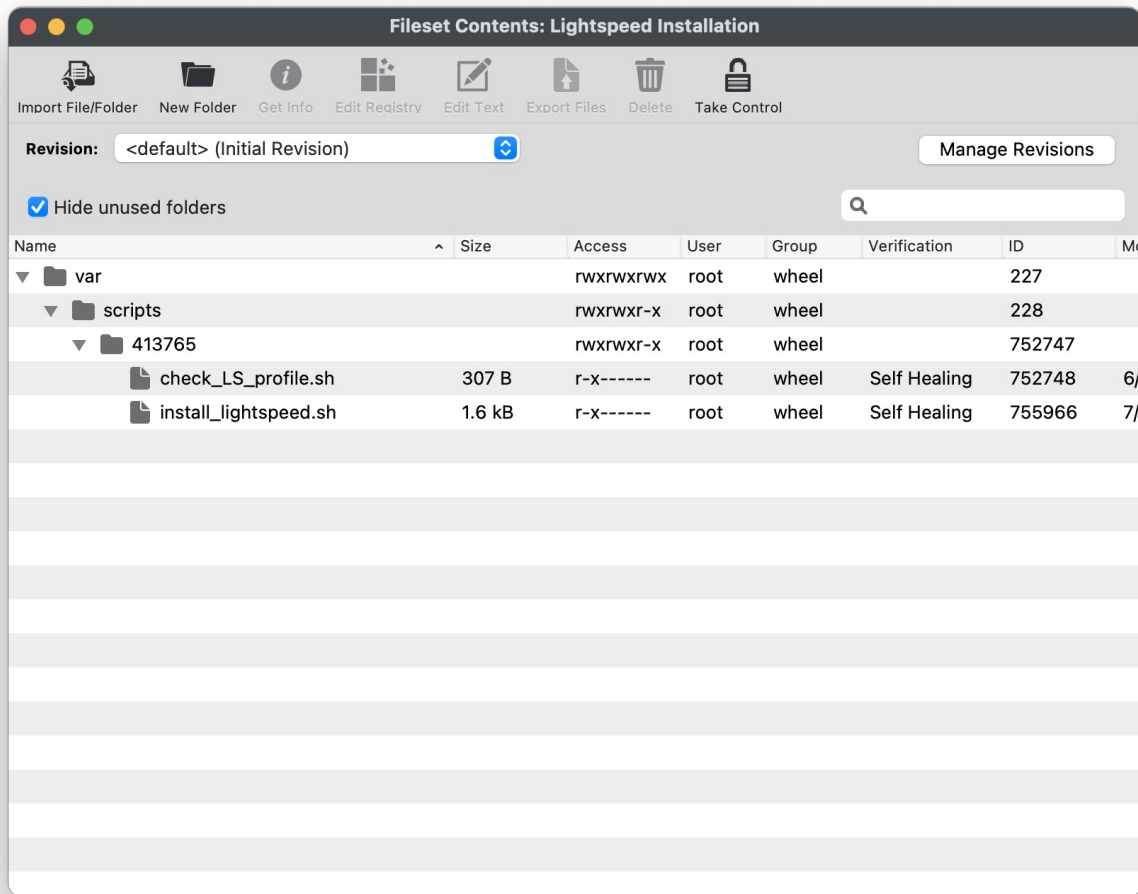
 Note: This Requirement scripts verifies that the Lightspeed Agent Profile is installed successfully BEFORE running the installation of Lightspeed.

When all completed, the Fileset contents will include your Smart Agent PKG, Lightspeed Install and Profile.



The screenshot shows a window titled "Fileset Contents: PKG - SmartAgent". It features a toolbar with icons for Import File/Folder, New Folder, Get Info, Edit Registry, Edit Text, Export Files, Delete, and Take Control. Below the toolbar, there is a "Revision:" dropdown set to "<default> (Initial Revision)" and a "Manage Revisions" button. A checkbox labeled "Hide unused folders" is checked. A search bar is also present. The main content is a table with columns: Name, Size, Access, User, Group, Verification, ID, and Mc. The table lists the following items:

Name	Size	Access	User	Group	Verification	ID	Mc
usr		rw-r--r--	root	wheel		230	
local		rw-rw-r--	root	wheel		231	
etc		rw-rw-r--	root	wheel		232	
FileWaveInstallers		rw-rw-r--	root	wheel		666	
FlatPackage-SmartAgent.pkg		rw-rw-r--	root	wheel		129381	
SmartAgent.pkg	26.8 MB	rw-r--r--	Typic...	staff	Ignore At Ve...	755967	4/
var		rw-rw-rw-	root	wheel		227	
scripts		rw-rw-r--	root	wheel		228	
414075		rw-rw-r--	root	wheel		755968	
check_LS.sh	307 B	r-x-----	root	wheel	Self Healing	755969	7/



## Creating Fileset Group for your Lightspeed Filter Agent Filesets

Keeping your Filesets organized is good practice, especially if there are multiple Filesets for software deployment. You may create a New Fileset Group, label it Lightspeed Filter Agent (macOS 2023), and move all the Filesets you created into that Fileset Group. Then you may associate the Fileset Group labeled Lightspeed Filter Agent (macOS 2023) to your devices versus individual Filesets.



Once all the Filesets and Profile have been created, you may associate the Fileset Group labeled Lightspeed Filter Agent macOS 2023 to a few devices as a test. This is to verify and confirm that the filter is installed and filtering properly based on your configurations. For best practice, always test a few devices before mass deployment.

## Lightspeed Smart Filter Deployment (iOS 2023)

Needing to deploy Lightspeed for iOS devices? Review the KB article here: [Lightspeed Smart Filter Deployment \(iOS 2023\)](#).

## Lightspeed Smart Filter Deployment (macOS v2.3.1+ using Certificate Manager)

Needing to deploy Lightspeed for macOS using Certificate Manager? Review the KB article here: [Lightspeed Smart Filter Deployment using Certificate Manager](#).

Revision #25

★ Created 23 June 2023 16:27:45 by Andrew Kloosterhuis

✎ Updated 8 March 2024 18:23:20 by Zachary Butterfield