

How to Upload Packages to Jamf Cloud using Autopkgr





This guide was created to assist others who are looking to upload packages to their Jamf Cloud distribution point using Autopkgr without the need to create smart groups or policies. There are GitHub repositories that contain jss recipes but those recipes will create smart groups and policies. The recipes that we will make in this guide will be jss-upload recipes and will not create smart groups or policies.

Autopkgr will name the package with the version number of the software that you're packaging which will allow you to easily match up the software version number with a patch management definition in Jamf Pro. Autopkgr can be configured to automatically update repositories and run the jss-upload recipes on a schedule making the process of getting updated packages into your Jamf Cloud repository much easier.

This guide will teach you how to create recipes that will use parent recipes from the autopkg GitHub repo. It's intended to be a step by step guide for people that are new to Autopkgr and recipe creation for jss-upload recipes.

Hat tip to Daz Wallace and Graham Pugh for guiding me through the process of understanding how to make autopkg recipes with the minimum requirements for packaging files and uploading them to a Jamf Cloud distribution point.

Daz's guide can be found here: https://dazwallace.wordpress.com/2019/03/12/using-autopkg-for-package-uploads-to-jamf-cloud-only/

Requirements

- 1. Install AutoPkgr. Get it here: https://github.com/lindegroup/autopkgr/releases/tag/v1.4.2
- 2. Install JSSImporter. Get it here: https://github.com/jssimporter/JSSImporter/releases
- 3. A Jamf Pro cloud hosted server. More info here: https://www.jamf.com/products/jamf-cloud/
- 4. A plain text editor. I recommend BBEdit. Get a free 30 day trial here: https://www.barebones.com/ products/bbedit/download.html
- 5. A GitHub repository. Create one here: https://github.com

How to Upload Packages to Jamf Cloud using Autopkgr



Section 1. Install and configure AutoPkgr and JSSImporter.

In this section we will discuss the installation and configuration of Autopkgr, JSSImporter and subscribing to the autopkg GitHub repository.

1. Install the AutoPkgr and JSSImporter importer packages, accepting all default dialog windows.



2. Open AutoPkgr located in the Applications folder.



3. Enter your administrative credentials at the message below, then click the Install Helper button.

\cap	AutoPkgr is tryi	ng to install a new	helper tool.
0	Enter your passwor	d to allow this.	
	User Name:		
	Password:		
		Cancel	Install Helper



- 4. Follow these steps:
 - A. Click the Install AutoPkg button. Enter your admin credentials when prompted.
 - B. Click the Install Git button. Enter your admin credentials when prompted.
 - C. Click the Install JSSImporter button. Enter your admin credentials when prompted.

				A	
	Install	Repos & Recipes	Schedule	Notifications	Folders & Integration
A —		Install AutoPkg		AutoPkg not in	stalled
		motuli Autor kg		Autoring not in	stalled.
В —		Install Git	0	Git not installe	d.
c		Install JSSImporte	ro	JSSImporter n	ot installed.
			Launch Auto	Pkar at login	
			Show AutoP	kar menu icon	
			Hide AutoPk	ar in Dock	
			The AutoPr	gr in Dock	

5. Once installed, all items will have green status lights next to them.

Install	Repos & Recipes	Schedule	Notifications	Folders & Integration)
	Install AutoPkg	•	AutoPkg 1.0.4	installed.	
	Install Git	•	Git 2.2.1 instal	led.	
	Uninstall JSSImport	er	JSSImporter 1	.0.0 installed.	
		Launch Auto Show AutoPk Hide AutoPk	Pkgr at login kgr menu icon :gr in Dock		



6. Select the Folders & Integration tab.

Install	Repos & Recipes	Schedule	Notifications	Folders & Integration
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7. Click the Configure JSSImporter button.

tegrations	
Install AMExport	AbsoluteManageExport not installed.
Configure AutoPkg	AutoPkg 1.0.4 installed.
Install FileWaveImporter	 FileWaveImporter not installed.
Configure Git	Git 2.2.1 installed.
Configure JSSImporter	 JSSImporter 1.0.0 installed.
Install LANrevImporter	 LANrevImporter not installed.
Install MacPatchImporter	 MacPatchImporter not installed.
Install Munki tools	 Munki tools not installed.
Install VirusTotalAnalyzer	 VirusTotalAnalyzer not installed.

- 8. Follow these steps:
 - A. Enter the URL of your Jamf Cloud server.
 - B. Enter your Jamf Administrative credentials or an account that has proper privileges. C. Click the Connect button.

0. 0101 110	Connoct Dutton.	

	● ● AutoPkgr	
	JSSImporter Integration	
A —	ISS LIRI - https://your.jamfcloud.com	
в —	Username: jssadmin Password: •••••	c
	Distribution Points	
	Add Distribution Point With selected: Edit Remove	
	Copyright 2014, 2015 Shea Craig http://www.apache.org/licenses/LICENSE-2.0	
	https://github.com/sheagcraig/JSSImporter Uninstall Save and Close	



9. Click the Add Distribution Point button.

	AutoPkgr		
JSSImporter Integration			
JSS URL: https://your.jamfcloud.com	<u></u>		Verify SSL
Username: jssadmin	Password:	•••••	Connect
Distribution Points			
Add Distribution Point		With selected:	Remove
Copyright 2014, 2015 Shea Craig http://www.apache.org/licenses/LICENSE-2.0			
https://github.com/sheagcraig/JSSImporter		Uninstall	Save and Close

10. Select CDP from the dropdown menu.

Configu	re New Distribution Point	
Configu	re New Distribution Point	
Туре:	✓ JDS Local AFP	
	CDP	
	SMB	

11. Click the Add button.

• • • • Co	nfigure New Distribution Point
Co	nfigure New Distribution Point
Type:	CDP 🗘
	Cancel Add



12. Click the Save and Close button.

	AutoPkgr	
JSSImporter Integration		
JSS URL: https://your.jamfcloud.com		Verify SSL
Username: jssadmin	Password:	Connect
Distribution Points		
Cloud Distribution Point		
Add Distribution Point	With selected:	Remove
Copyright 2014, 2015 Shea Craig http://www.apache.org/licenses/LICENSE-2.0		
https://github.com/sheagcraig/JSSImporter	Uninstall	Save and Close

13. If everything went well, you will see a green status light next to the Configure JSSImporter button.

•		AutoP	kgr		
Install	Repos & Recipes	Schedule	Notif	fications	Folders & Integration
AutoPkg folders					
Cache	~/Library/AutoPkg/Cache			Choose.	Open in Finder
Repos	: ~/Library/AutoPkg	/RecipeRepos	s	Choose.	Open in Finder
Overrides	:Library/AutoPkg	/RecipeOverri	ides	Choose.	Open in Finder
Integrations					
Install Al	MExport	AbsoluteManag	eExport	t not installe	ed.
Configure	AutoPkg 🛛 🔵	AutoPkg 1.0.4 ir	nstalled		
Install FileWaveImporter FileW					
Install Fliew	avelmporter 🛛 🔿	FileWaveImport	er not i	nstalled.	
Config	avelmporter O	FileWaveImport Git 2.20.1 instal	er not in led.	nstalled.	
Configure J	avelmporter 0 ure Git 0 SSImporter 0	FileWaveImport Git 2.20.1 instal JSSImporter 1.0	er not ir led.).0 insta	nstalled. alled.	
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Config Config Install LAN Install MacPa	aveImporter Ure Git SSImporter evImporter atchImporter unki tools	FileWaveImport Git 2.20.1 instal JSSImporter 1.C LANrevImporter MacPatchImpor Munki tools not	er not ir led. 0.0 insta r not ins rter not installe	nstalled. alled. stalled. installed. ed.	



14. Select the Repos & Recipes tab.

Install	Repos & Recipes	Schedule	Notifications	Folders & Integration

15. In the Repo section, select the autopkg repo. It's named: https://github.com/autopkg/recipes.git

	Install	Repos & Recipes	Schedule	Notifications	Folders & Integrati	ion
	Update	e Repos Now	?		Q Filter repos	
R	epo Clone I	JRI			Stars	Status
🗹 h	ttps://gith	ub.com/autopkg/reci	ipes.git		★ 134	۲
□ h □ h □ h	ttps://gith ttps://gith ttps://gith	ub.com/HCSTech/Au ub.com/autopkg/48k ub.com/autopkg/Dar	itopkg.git RAM-recipes komen78-rec	.git ipes.git	★4 ★3	

16. The autopkg recipes will now show up in the recipes section.

				-				
Inst	all Repos & Re	cipes Sc	hedule	Notifications	Folde	ers & In	tegrati	on
	data Danaa Naw	2						
U	bdate Repos Now					Q Filter	rrepos	
Repo Cl	one URL					1	Stars	Statu
/ https://	github.com/autop	kg/recipes.	.git			1	* 134	
https://	github.com/HCST	ech/Autopk	kg.git					
https://	github.com/autop	kg/48kRAN	A-recipes	s.git		5	★ 4	
https://	github.com/autop	kg/Darkom	en78-rec	cipes.git			★ 3	
Ado	l a repo URL manual	ly:						Add
Ado R Status	I a repo URL manual un Recipes Now Recipe Name	ly:?	Recipe I	Identifier	(Q Filter	r recipe	Add
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Adc R Status	un Recipes Now Recipe Name Adium.download Adium.install Adium.munki	ly: 2	Recipe I com.gir com.gir com.gir	ldentifier thub.autopkg.dov thub.autopkg.ins thub.autopkg.mu	wnload tall.Adi ınki.Adi	Q Filter .Adium um um	r recipe	Add
Adc Status	un Recipes Now Recipe Name Adium.download Adium.install Adium.munki Adium.pkg	:v: ?	Recipe I com.gi com.gi com.gi com.gi	ldentifier thub.autopkg.dov thub.autopkg.ins thub.autopkg.mu thub.autopkg.pkg	wnload tall.Adi ınki.Adi g.Adiun	Q Filte Adium um um	r recipe	Add s
Adc R Status	I a repo URL manual un Recipes Now Recipe Name Adium.download Adium.install Adium.munki Adium.pkg	ly: 2	Recipe I com.gi com.gi com.gi com.gi	ldentifier thub.autopkg.do thub.autopkg.ins thub.autopkg.mu thub.autopkg.pkg	wnload tall.Adi ınki.Adi g.Adiun	Q Filte .Adium um um n	r recipe	Add s
Adc R Status Search 1	I a repo URL manual un Recipes Now Recipe Name Adium.download Adium.install Adium.munki Adium.pkg or a recipe on GitHu	d b:	Recipe I com.gi com.gi com.gi com.gi	Identifier thub.autopkg.dov thub.autopkg.ins thub.autopkg.mu thub.autopkg.pkg	wnload tall.Adi ınki.Adi g.Adiun	Q Filter .Adium um um n	r recipe	Add s Search
Add R Status Search 1	I a repo URL manual un Recipes Now Recipe Name Adium.download Adium.install Adium.munki Adium.pkg for a recipe on GitHu Active recipe list:	d recipe list	Recipe I com.gi com.gi com.gi	ldentifier thub.autopkg.dov thub.autopkg.ins thub.autopkg.mu thub.autopkg.pkg	wnload tall.Adi unki.Adi g.Adiun	Q Filter .Adium um n	r recipe	Add



Section 2. Creating a jss-upload recipe

In this section we will discuss the creation of a jss-upload recipe using a parent recipe from the autopkg GitHub repository. Parent recipes do most of the work as they contain all the steps to download and package the software for our jss-upload recipe. We will also cover configuring a manual GitHub repository in Autopkgr.

1. In order to use a parent recipe for our jss-upload recipe, we must be subscribed to the autopkg Github repository in Autopkgr which we did in step 16 in the first section of this document. Once we subscribe to a repository, it will clone it to the AutoPkg folder which is located in the User Library folder. ~/Library/AutoPkg. If that folder was not present our your Mac, you would not be able to reference it as the parent for your jss-upload recipe.

NOTE: You can use other GitHub repositories if you need to for the parent recipe. I chose to use the autopkg repository as most other repositories use it as their parent.



2. This is a sample of a jss-upload recipe file. To follow along with this guide, download this sample recipe file from the HCS GitHub repository here:

https://github.com/HCSTech/Autopkg/blob/master/Skype-jss-upload.recipe

Once downloaded, open it with BBEdit or your favorite text editor.

The items in RED are the items that you would change if you wanted to use this as a template for a different software title. For example, say you want to use this template to pkg and upload Google Chrome to your Jamf Cloud distribution point. For each item named Skype in RED, with an exception of the ParentRecipe, change it to GoogleChrome.

Now we need to find the Identifier for the ParentRecipe which lives in the autopkg repository. We will do that in the next step.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">>
<plist version="1.0">
<dict>
  <kev>Description</key>
  <string>Uses parent pkg recipe to download latest Skype and import it into the JSS.</string>
  <key>ldentifier</key>
   <string>com.hcs.iss-upload.Skype</string>
   <key>Input</key>
  <dict>
     <kev>CATEGORY</kev>
     <string>Applications</string>
<key>NAME</key>
     <string>Skype</string>
  </dict>
   <key>MinimumVersion</key>
  <strina>0.2.0</strina>
   <key>ParentRecipe</key>
  <string>com.github.autopkg.pkg.Skvpe</string>
   <key>Process</key:
  <array>
     <dict>
        <key>Arguments</key>
        <dict>
          <key>category</key>
          <string>%CATEGORY%</string>
          <key>prod_name</key>
          <string>%NAME%</string>
          <key>pkg_path</key>
          <string>%pkg_path%</string>
        </dict>
        <key>Processor</key>
       <string>JSSImporter</string>
     </dict>
  </array>
</dict>
</plist>
```



3. Open the Terminal application and enter the following command:

autopkg info GoogleChrome.pkg

You will see the following output: The item in RED is the Identifier. Copy that information then go back to your jss-upload template from step 2 and overwrite the value in the ParentRecipe with this new information. IE.. com.github.autopkg.pkg.googlechrome

```
Description: Downloads latest Google Chrome disk image and builds a package.
Identifier: com.github.autopkg.pkg.googlechrome
Munki import recipe: False
Has check phase: True
Builds package: True
Recipe file path: /Users/work/Library/AutoPkg/RecipeRepos/com.github.autopkg.
recipes/GoogleChrome/GoogleChrome.pkg.recipe
Parent recipe(s): /Users/work/Library/AutoPkg/RecipeRepos/com.github.autopkg.
recipes/GoogleChrome/GoogleChrome.download.recipe
```

The item in RED is the Identifier. Copy that information then go back to your jss-upload template from step 2 and overwrite the value in the ParentRecipe with this new information. IE.. com.github. autopkg.pkg.googlechrome

```
4. The updated jss-upload recipe should look like the item below.
     <?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
      <plist version="1.0">
     <dict>
          <key>Description</key>
          <string>Uses parent pkg recipe to download latest Google Chrome and import it into the JSS.</string>
          <key>Identifier</key>
          <string>com.hcs.jss-upload.GoogleChrome</string>
<key>Input</key>
          <dict>
               <key>CATEGORY</key>
               <string>Applications</string>
<key>NAME</key>
                <string>Google Chrome</string>
          </dict>
<key>MinimumVersion</key>
          <string>0.2.0</string>
          <key>ParentRecipe</key>
<string><com.github.autopkg.pkg.googlechrome</string>
          <key>Process</key>
          <array>
                <dict>
                    <key>Arguments</key>
                    <dict>
                         <key>category</key>
<string>%CATEGORY%</string>
                         <key>prod_name</key>
                         <string>%NAME%</string>
                         <key>pkg_path</key>
<string>%pkg_path</key>
<string>%pkg_path%</string>
                    </dict>
                    <key>Processor</key>
                    <string>JSSImporter</string>
               </dict>
          </array>
     </dict>
     </plist>
```



5. This step requires a GitHub repository. Log in to your GitHub repository. Create a new file and name it: GoogleChrome.jss-upload.recipe. Paste in a copy of the Google Chrome recipe that you created in step 4 then commit the changes.

NOTE: Screen shot truncated to fit this guide.

V/Coue	① Issues 0 ① Pull requests 0
utopkg /	GoogleChrome.jss-upload.
<> Edit file	• • Preview changes
1 x</td <td>ml version="1.0" encoding="UTF-8"?></td>	ml version="1.0" encoding="UTF-8"?>
2 D</td <td>OCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.</td>	OCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.
3 <pl< td=""><td>ist version="1.0"></td></pl<>	ist version="1.0">
5	<pre><kev>Description</kev></pre>
6	<pre><string>Uses parent pkg recipe to dowr</string></pre>
7	<key>Identifier</key>
8	<pre><string>com.hcs.GoogleChrome</string> </pre>
9 10	<key>input</key>
• •	Commit directly to the master branch.
	Create a new branch for this commit and st
់ រោ	

6. Open AutoPkgr, then select the Repos & Recipes tab.

	AutoPkgr							
Insta	II Repos & Recipes	Schedule	Notifications	Folders & Integration				



7. Go to the Add a repo URL manually: field, and enter the URL of your GitHub repo then Click the Add button.

	Install	Repos & Recipes	Schedule	Notifications	Folders &	Integratio	on
	Update	e Repos Now	?		Q Fil	ter repos	
R	epo Clone I	URL				Stars	Status
✓ h	ttps://gith ttps://gith	ub.com/autopkg/reci ub.com/HCSTech/Au	pes.git topkg.git			★134	•
h h	ttps://gith ttps://gith	ub.com/autopkg/48k ub.com/autopkg/Dar	RAM-recipes komen78-rec	.git ipes.git		★4 ★3	
	Add a re	epo URL manually: http	s://github.com,	/HCSTech/Autopkg	.git		Add

8. Your GitHub repo will be selected and the GoogleChrome.jss-upload recipe will be available in the recipes list. Make sure to put a check in the box next to the GoogleChrome.jss-upload recipe.

NOTE: If you don't see your google chrome recipe, you can search for it in the Filter recipes search box.

			AutoP	kgr			
Ins	tall Repos & Re	ecipes Sc	hedule	Notifications	Folders	& Integrat	ion
U	Ipdate Repos Now	?			Q	Filter repos	
Repo C	lone URL					Stars	Status
https:/	/github.com/HCS	Tech/Autopk	g.git				۲
https:/	/github.com/auto	pkg/recipes.	git			★ 134	
https:/	/github.com/auto	pkg/48kRAM	I-recipes.	.git		★4	
https:/	/github.com/auto	pkg/Darkome	en78-reci	ipes.git		★ 3	
٨d	d a ropo LIPI, manua	llve					Add
Au		ily.					Add
	Run Recipes Now	?		2,320 - 10,121,121,121	Q	Filter recipe	es
Status	Run Recipes Now	?	Recipe lo	dentifier	Q	Filter recipe	25
Status	Run Recipes Now Recipe Name GoogleChrome	.jss-upload	Recipe lo com.hc	dentifier s.GoogleChrom	Q	Filter recipe	25
Status	Run Recipes Now Recipe Name GoogleChrome Java8-jss-uplo	.jss-upload ad	Recipe lo com.hc com.hc	dentifier s.GoogleChrom s.jss-upload.jav	Q le va8	Filter recipe	25
Status	Run Recipes Now Recipe Name GoogleChrome Java8-jss-uplo Silverlight-jss-u	.jss-upload ad upload	Recipe lo com.hc com.hc com.hc	dentifier s.GoogleChrom s.jss-upload.jav s.jss-upload.Sil	رم e va8 verlight	Filter recipe	25
Status	Run Recipes Now Recipe Name GoogleChrome Java8-jss-uplo Silverlight-jss-u Skype-jss-uplo	.jss-upload ad upload ad	Recipe la com.hc com.hc com.hc com.hc	dentifier s.GoogleChrom s.jss-upload.jav s.jss-upload.Sil s.jss-upload.Skl	e va8 verlight vype	Filter recipe	25
Status Status	Run Recipes Now Recipe Name GoogleChrome Java8-jss-uplo Silverlight-jss-uplo for a recipe on GitH	.jss-upload ad upload ad ub:	Recipe lo com.hc com.hc com.hc com.hc	dentifier s.GoogleChrom s.jss-upload.jav s.jss-upload.Sil s.jss-upload.Sk	Q ve verlight vype	Filter recipe	Search



9. Right click on the GoogleChrome.jss-upload recipe and select Run This Recipe Only.

NOTE: Although they are not required, I would always recommend creating recipe overrides. Without them, you don't know if the parent recipes have been compromised and you could end up uploading something malicious to your repository. It will provide added security. Learn more about recipe overides here:

https://github.com/autopkg/autopkg/wiki/Recipe-Override

Status	Recipe	Name	Recipe Identifier	
1	Goo	<u>- 01</u> · · · · · ·		
	lava	Run This Rec	ipe Only	
)	Cilua	Get Info		
	SIIVE	Parent Recipe	e: com.github.autopkg.pkg.googlechrome	
	SKVR	Create Overri	ide	
Search f	for a recu			

10. You will see a spinning status gear while the recipe is running. When that gear goes away, the upload process has finished.



11. Log into your Jamf Pro cloud server.

🗖 jamf 🛛	PRO
USERNAME ex. admin	
PASSWORD	\bigcirc

12. Select the settings gear icon in the upper right hand corner.





13. Select the Computer Management section, then select Packages.

Computer Management



14. If all went well, the Google Chrome package will now be in your Jamf Cloud Server repository with a category of Applications.



This completes this guide.