

# How to Configure Baseline for Jamf Pro



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# Preface

## What is Baseline?

Written by the very talented Trevor Sysock at Second Son Consulting, Baseline is an MDM agnostic deployment solution for macOS that leverages swiftDialog, Installomator, and your original code to provide a zero or light touch deployment solution for Mac computers. It can be configured with a mobileconfig profile or a plist and can install packages, scripts, and Installomator labels that are defined in your configuration file.

## What are the requirements for Baseline?

- macOS 12 or later
- SwiftDialog 2.4.2 or later
- Baseline 2.2 or later
- A mobileconfig profile or plist that defines what Installomator labels, Packages, or scripts to run

# What does the Baseline package install?

All Baseline files are located in /usr/local/Baseline

The following items are installed in the Baseline folder:

- Packages Add all packages that you want to install here.
- Scripts Add all scripts that you want to run here.
- Icons Add all icons that you want to use here.
- Baseline.sh This is the primary Baseline script

Baseline also installs a LaunchDaemon in:

/Library/LaunchDaemons/com.secondsonconsulting.baseline.plist

# Where are the Baseline log files located?

Baseline outputs 3 log files:

- /var/log/Baseline.log This file contains a manifest of each step that Baseline processed. This is the best place to find an overview of "What did Baseline do, and was it successful?"
- /var/log/BaselineOutput.log Baseline runs with /bin/zsh -x or set -x which is a verbose shell
  mode that prints output containing all variable expansion and details of every single step
  along the way.
  - When run via the provided pkg, the included LaunchDaemon directs this verbose output here.
  - When run manually in Terminal, the verbose output is sent to the standard output.
  - If running the script from a management tool, consider commenting out line 2 set -x to prevent a ton of data from being sent back to your tool.
- /var/log/Baseline-ScriptsOutput.log For any Scripts or InitialScripts you have defined in your configuration file, the output of those scripts will be sent to this file.



#### How does Baseline work?

Baseline is written to follow an order of operations after the primary Baseline script has ran. Below is a brief description of the order of operations. For full details, read more here: https://github.com/SecondSonConsulting/Baseline/wiki/How-it-Works

- 1. Check for a valid mobileconfig or plist file.
- 2. Check for Installomator labels and if found, automatically install Installomator.
- 3. Check for the latest version of swiftDialog and install it automatically if an older version is found.
- 4. Check if a user is logged into the Mac computer. If no user is logged in, Baseline will wait until a user logs in.
- 5. Check for Initial Scripts. Initial Scripts can be used to customize the Baseline welcome screen.
- 6. Check for a Baseline configuration file. Either a mobileconfig profile or plist that tells Baseline what to install.
- 7. SwiftDialog will show all items that need to be installed, display any custom app icons, and show the installation progress of each item.
- 8. If there are any Installomator labels in your configuration, Installomator will be used to download and install the labels.
- 9. If there are any packages in your configuration, they will be installed.
- 10. If there are any scripts in your configuration, they will be run.
- 11.Baseline will delete its launch daemon to ensure it's not loaded again after a reboot.
- 12.Baseline will clean itself up after it is run by deleting all items in /usr/local/Baseline unless the "CleanupAfterUse" key is set to false. Log files are NOT deleted.
- 13.Baseline will present the user with a message after it runs letting the user know if everything was successful. If something failed it will be displayed in the message.
- 14.Baseline can be configured to reboot or logout when completed. A timer can be displayed that will force reboot or logout. The default behavior is to reboot with a two minute timer.

#### What will this guide cover?

This guide will cover configuring Baseline with customizations for Jamf Pro using a Mac PreStage enrollment. Sample files will be provided so you can following along with the guide. At the end of this guide, you will have a deployment workflow that makes use of the following features of Baseline:

- Initial Scripts
- Installomator Labels
- Packages
- Scripts
- Custom App Icons



## Requirements for this guide:

This guide was written using the following items:

- Baseline version 2.2 or later
- iMazing Profile Editor 1.9 or later
- Jamf Composer 11.4: NOTE: There is a product issue with Jamf Composer 11.4.1 and later so make sure to download Jamf Composer 11.4 to follow along with this guide.
- Jamf Pro server 11.5 with administrative credentials
- A non production Mac computer running macOS Sonoma enrolled in Apple Business or School manager and assigned to your Jamf Pro server.
- Sample Files: https://hcsonline.com/images/pkg/BaselineSampleFiles.zip
- Access to GitHub

This guide makes use of the following configured items on the Jamf Pro server:

- A category named: Mac Deployment Baseline
- A computer PreStage Enrollment named: Baseline Mac Deployment
- Buildings named: HCS Connecticut, HCS Florida, HCS New York
- Departments named: Accounting, Engineering, Information Technology

We highly recommend creating the Mac Deployment Baseline category and Baseline Mac Deployment PreStage for best results when following the lessons in this guide. Buildings and departments should be created to suit your environment. We are including sample files with this guide. There is a script named registration.sh that contains variables like company name, buildings, departments, deployment type, etc.... You can edit those items in the script prior to following this guide. If you don't edit that script, all the default HCS values will be used.

If you plan on using buildings and departments in your Baseline workflow, the name of the buildings and departments that you enter in the registration.sh script MUST be spelled exactly the same as they are on the Jamf Pro server. If they are not spelled exactly the same, the information you enter during the Baseline registration will NOT be sent to the Jamf Pro server. The registration. sh script is heavily commented to make it easy to understand what can be changed and what should NOT be touched.

NOTE: Baseline, Installomator, SwiftDialog, and the icons used in this guide all require access to GitHub. If your environment blocks GitHub you will NOT be able to following along with the lessons in this guide.



# Section 1: Jamf Pro Preparation for Baseline

### What You'll Need:

Learn what hardware, software, and information you'll need to complete the lessons in this guide.

### Hardware and Software:

Requirements for following along with this guide. Download the items below:

- Baseline version 2.2 or later: https://github.com/SecondSonConsulting/Baseline/releases
- iMazing Profile Editor from the App Store: https://apps.apple.com/us/app/imazing-profile-editor/id1487860882?mt=12
- Jamf Composer: https://account.jamf.com/login
   NOTE: Login with your Jamf Account using your Jamf ID to download Jamf Composer. There is a product issue with Jamf Composer 11.4.1 or later so make sure to download Jamf Composer 11.4 to follow along with this guide.
- Jamf Pro server with administrative credentials
- A non production Mac computer running macOS Sonoma enrolled in Apple Business or School manager and assigned to your Jamf Pro server.
- Sample Files:

https://hcsonline.com/images/pkg/BaselineSampleFiles.zip

NOTE: This guide assumes all downloaded software is in the Downloads folder on your Mac.

1. Log into your Jamf Pro server with administrative credentials.



- 2. Click Settings.
- 3. Click Computer Management.
- 4. Click Packages.

	Pro				Q 8
	🔂 Dashboard		Settings		
	Computers	>	U U		
	C Devices	>	Search		——————————————————————————————————————
	& Users	>	All System Global Jamf apps Self Servi	ce Server Network Computer management	Device management User management Information
2 —	Settings		14 settings		
			🤪 Packages	Scripts	🚘 Printers
4 —			Upload packages, configure settings, and set deployment priority	Upload and manage scripts to deploy to computers, set parameters	Configure printers to deploy to computers
			Directory bindings	<b>Oisk encryption configurations</b>	Dock items

5. Click New,

Settings :	Computer management	+
⊢ Pa	ackages	New
	<b></b>	
l		

6. Select the following:

A. Category: Select a category of your choosing. This guide will use Mac Deployment Baseline.B. Filename: Drag the Baseline\_v2.2.pkg from your Downloads folder to the Drop file here section.C. Click Save.

General Options Limitat	ions	
Display Name Display name for the package		
Baseline_v2.2.pkg		
Required		
Category Category to add the package to		
-Mac Deployment Baseline	~	
File name Filename of the package on the di	stribution point (e.g. "MyPackage.pkg")	
-	Drop file here or <u>browse for a file.</u>	



- 7. Repeat steps 5-6 and upload the Show Me Your ID 3.0.pkg located in the Sample Files folder that you downloaded in the beginning of this section. Confirm you have uploaded the following packages before continuing to step 11:
  - Baseline\_v2.2.pkg
  - Show Me Your ID 3.0.pkg
- 8. Click Computers.
- 9. Click PreStage Enrollments.
- 10.Click New.

	2	Pro	\$ &	
8 —	88	Computers	Computers PreStage Enrollments	
Ŭ	G	Policies Configuration Profiles	+ New	-10
	88	Software Updates	NAME	
	۲	Restricted Software		
		Mac Apps		
		Patch Management		
		eBooks		
		Groups		
		Smart Computer Groups		
		Static Computer Groups		
		Classes		
		Enrollment		
		Enrollment Invitations		
9 —		PreStage Enrollments		

11.Select General then enter a name of your choosing in the Display Name field. This guide will use Baseline Mac Deployment.

NOTE: Configure the rest of the PreStage settings to your needs. This guide will only focus on configuring the PreStage Name and Enrollment packages.

12. Click Enrollment Packages.

Computers	Computers : PreStage Enrollment	s ter DreStage Enrollment
	New Compu	ter Frestage Enronment
Policies		
Configuration Profiles	Options Scope	
Software Updates	👩 General	General
Restricted Software		Distant
Mac Apps	Account Settings	Display name for the PreStage enrollment
mad rippo		Baseline Mac Deployment
Patch Management	Configuration	
eBooks	0 Profiles	Automated Device Enrollment Instance
		Automated Device Enrollment instance to associate with the Prestage enrollment. Devices associated with the selected Automated Device Enrollment instance can be assigned the Prestage enrollment
Groups	User and Location	Geek ABM 🔻
Smart Computer		
Groups	Durchasing	Automatically assign new devices Automatically assign all new devices to this PreStage enrollment
Static Computer Groups		
Classes	Attachments	Use existing location information, if applicable
010000	o ritta i monto	Support Phone Number
Enrollment	Certificates	Support phone number for the organization
Enrollment Invitations	Enrollment	
PreStage Enrollments	Packages	Support Email address Support email address for the organization
	0 Packages	



# 13.Click Configure.

Computers : PreStage Enrollments ← Baseline Mac Deployme	nt
Options Scope	
👔 General	
Account Settings	
Configuration Profiles 0 Profiles	
User and Location	
Level Purchasing	Configure Enroliment Packages Use this section to add an enrollment package to the PreStage enrollment. Compatible packages must be
Attachments 0 Attachments	built as flat, distribution style .pkg files and be signed by a certificate that is trusted by managed computers.
Certificates	Configure
Enrollment Packages 0 Packages	

# 14.Find the Baseline package.

# 15.Click Add.

Baseline_v2.2.pkg	Mac Deployment Baseline	Add
-------------------	-------------------------	-----

16. Select the radio button for Cloud Distribution Point (Jamf Cloud).

Enrollment Packages	
Distribution Point Distribution point to download the package(s) from None Cloud Distribution Point (Jamf Cloud)	
Baseline_v2.2.pkg	× +



# 17.Click Scope

18.Select a Mac to use for testing with Baseline.

19.Click Save.

Pro	Q 8
Computers	Computers : PreStage Enrollments ← Baseline Mac Deployment
Policies Configuration Profiles	Options Scope 17
Software Updates Restricted Software	Q Filter Results 0 - 0 of 0
Mac Apps	Select All Deselect All
Patch Management	DEVICE 🚸 SERIAL NUMBER 🔶 MODEL 🚸 DESCRIPTION 🔶 ASSET TAG 🚸 DEVICE ASSIGNMENT STATUS 🚸 DEVICE ASSIGNMENT STATUS
eBooks	Q423\ MacBook Air
Groups	
Smart Computer Groups	18
Static Computer Groups	
Classes	
Classes	
Classes Enrollment Enrollment Invitations	

# 20.Click Save.

Confirm PreStage Acco Creation	unt Settings
PreStage account settings creation to save. Do not refresh.	may take extended time
	Cancel

21.Click Computers.

22.Smart Computer Groups.

23.Click New.

	2	Pro		Q 8	
21 —		Computers	Computers Smart Computer Groups		
	G	Policies Configuration Profiles		+ New	-23
	88	Software Updates	NAME	φ.	
	۵	Restricted Software			
		Mac Apps			
		Patch Management			
		eBooks			
		Groups			
22 —		Smart Computer Groups			
		Static Computer Groups			
		Classes			
		Enroliment			
		Enrollment Invitations			
		PreStage Enrollments			



24. For Display Name, enter: Macs Enrolled with Baseline Mac Deployment PreStage.

5.Click Criteria.	25	
Computer Group Crite	zria Reports	
Display Name Display name for the smart com	buter aroup	
Macs Enrolled with Baseline	a Mac Deployment PreStage	- :

# 26.Click Add (+).

Computer Group	Criteria	Reports			
AND/OR		CRITERIA	OPERATOR	VALUE	
No Criteria Specified					
					+ Add

27. Click Choose for Enrollment Method: PreStage enrollment.

Computer Group	Criteria	Reports	Ň
Days since last	reboot		Choose
Default Web Bro	wser		Choose
Department			Choose
Enrollment Meth	nod: PreStag	e enrollment	Choose

# 28.Click Options (····)

Computer Group	Criteria Repo	orts			
AND/OR	CRITERIA	OPERATOR		VALUE	
•	Enrollment Method: PreStage enrollment	lis	•	1	

29.Click Choose for Baseline Mac Deployment.

Computer Group	Criteria	Reports	
CHOICE			
Baseline Mac Deployme	ent		Choose

# 30.Click Save.

Computer Group	Criteria Repo	orts				
AND/OR	CRITERIA	OPERATOR		VALUE		
•	Enrollment Method: PreStage enrollment	is	•	Baseline Mac Deployment	···	•
						+ Add
					(X) Cancel	සි Save



31. Select the checkbox for Show in Jamf Pro Dashboard.

Computer Group	Criteria Reports			show in Jamf	Pro Dashboard
AND/OR	CRITERIA	OPERATOR		VALUE	
•	Enrollment Method: PreStage enrollment	is	*		

# 32.Click Computers.

33.	Click	Po	licies.

34.Click New.

	2	Pro		\$ \$	
22 —	88	Computers	Computers Policies		
52	G	Inventory	Q Filter Policies         1 - 3 of 3	+ New := 00	-34
	8 ©	Search Inventory Search Volume Content Licensed Software	NAME	ψ	
33 —		Content Management Policies			
		Configuration Profiles Software Updates			
		Mac Apps Patch Management			
		eBooks			
		Groups			

35.Configure the following:

- A. Display Name: Install Show me your ID 3.0
- B. Category: Select a category of your choosing. This guide will use Mac Deployment Baseline
- C. Trigger: Select Custom and enter InstallShowMe
- D. Execution Frequency: Ongoing





- 36.Click Packages.
- 37.Click Configure.



38.Click add for Show Me Your ID 3.0.pkg.



- 39.Confirm the Action is set to Install.
- 40.Click Scope.

[8]	General	Packages	
	Packages 1 Package	Distribution Point Distribution point to download the package(s) from	
(@)	Software Updates Not Configured	Each computer's default distribution point	
	Scripts 0 Scripts	Show Me Your ID 3.0.pkg	× +
8	Printers 0 Printers	Action Action to take on computers	
Ó	Disk Encryption Not Configured	1113tán 39	

41.Click Add.

Options Scope Self Service	User Interaction	
Targets	Limitations	Exclusions
Target Computers Computers to deploy the policy to Specific Computers	Target Users Users to deploy the policy to Specific Users	
Selected Deployment Targets		+ Add



42.Click Computer Groups.

43.Enter baseline in the search field.

44. Click Add for Macs Enrolled with Baseline Mac Deployment PreStage

Targets	Limitations	Exclusions	
Add Deployment Targets		Done	
Computers Computer Group	Departments	ser Groups Buildings	
Q baseline 1-1 of 1	Departmenta		

45.Click Save.

Options	Scope	Self Service	User Interaction				
	Target	S	Limit	ations		Exclusions	
Add	l Deployme	nt Targets				Done	)
	Comput	ers	Computer Groups	Users		User Groups	
		Buildings			Departments		
٩	baseline	1 - 1 of	1				
	GROUP NAME						
•	1 •	Show: 10	0 •			(S) Cancel	(2) Save

46.Confirm the policy was created.

Comp ←	Policies			
~	Mac Deployment Baseline			
>	Install Show me your ID 3.0	Ongoing	InstallShowMe	Macs Enrolled with Baseline Mac Deployment PreStage

47.Log out of the Jamf Pro server.

This completes this section.

In the next section, we will create the configuration files needed to instruct Baseline during a Mac deployment.



# Section 2: Creating Baseline Configuration Files

#### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

#### Hardware and Software:

Requirements for following along with this section:

- iMazing Profile Editor Downloaded in section one of this guide.
- Sample Files Downloaded in section one of this guide.

In this section we will use iMazing Profile Editor to configure the files needed to instruct Baseline on what to install during a Mac computer deployment. For the purposes of this guide, our requirement is for the end-user to choose between two deployment types. The user will choose the "Executives" or "Staff" deployment type, and Baseline will install different applications based on that choice. We need to configure separate instruction plists for each of those choices.

1. Open iMazing Profile Editor located in the Applications folder. If you're presented with any first run messages, accept them.

NOTE: iMazing Profile Editor has a built in configuration profile for Baseline which makes configuring Baseline much easier. All the icons used in the configuration profiles are stored in a path on the HCS GitHub page. Access to GitHub is required as discussed in the Preface of this guide.



- 2. Click the General payload if it's not already selected and configure the following:
  - A. Name: Executives
  - B. Identifier: Enter an identifier of your choosing. This guide will use com.hcs.baseline
  - C. Organization: Enter your organization name. This guide will use HCS
  - D. Click Search Preferences in the upper right corner.





- 3. Enter baseline in the search field
- 4. Click Add Configuration Payload.



- 5. Under InitialScripts, Configure the following: A. Click Add (+)
  - B. Display Name: Registration
  - C. Script Path: /usr/local/Baseline/Scripts/registration.sh

	Baseline	
	<ul> <li>InitialScripts ⑦</li> <li>Define scripts that are</li> </ul>	a run immediately as the user logs in.
	Display Name	Script Path
в —	Registration	/usr/local/Baseline/Scripts/registration.sh
_		
A-	+   -   Duplicate	

- 6. Under Installomator, configure the following:
  - A. Click Add (+).
  - B. Display Name: Google Chrome
  - C. Label: googlechromepkg
  - D. Icon: https://github.com/HCSTech/icons/blob/main/Google\_Chrome.png?raw=true

	•	Installomator Labe	<b>Is</b> bels to be run by Baselir	ie.		
		Display Name	Label	Arguments	Icon	
в —	-	Google Chrome	googlechromepkg		https://github.com/HCSTech/icons/blob/main/Google_Chrome.png?raw=true	— D
				-с		
<b>A</b> —	L	+ -   Duplicate				ļ



- 7. Scroll down to Packages and configure the following:
  - A. Click Add (+).
  - B. Display Name: Verified Tokens
  - C. Package Path: /usr/local/Baseline/Packages/VerifiedTokens-1.0.pkg

D. Icon: https://github.com/HCSTech/icons/blob/main/VerifiedTokens.png?raw=true

	•	Packages Define Packages to I	be run by Baseline					
		Display Name	Package Path	TeamID	MD5	Arguments	Icon	
в —		Verified Tokens	/usr/local/Baseline/Packages/VerifiedTokens-1.0.pkg				https://github.com/HCSTech/icons/blob/main/VerifiedTokens.png?raw=true	D
			Lc					
А—		+   -   Duplicat	ie					

- 8. Scroll down to Scripts and configure the following: A. Click Add (+).
  - B. Display Name: Show Me Your ID 3.0
  - C. Script Path: /usr/local/bin/jamf
  - D. Arguments: policy -event InstallShowMe
  - E. Icon: https://github.com/HCSTech/icons/blob/main/ShowMeYourID.png?raw=true

Display N	lame	Script Path	Arguments	MD5	Icon
Show M	e Your ID 3.0	/usr/local/bin/jamf	policy -event InstallShowMe		https://github.com/HCSTech/icons/blob/main/ShowMeYourID.png?raw=true 🕈
		1			
	С				
			_		

- 9. Enable the following items:
  - Force Restart
  - Blur Screen
  - Show Progress Bar
  - Show Display Names on Progress Bar
  - Cleanup After Use
  - Use Installomator SwiftDialog Integration.
  - Verbose Jamf Items

NOTE: The items without the blue dots are enabled by default.





- 10.Scroll down and configure the following:
  - A. Dialog List Window Options:

--title "Installing Required Applications" --message "This may take a few minutes...." --icon "/ usr/local/Baseline/Icons/Logo.png"

B. Dialog Success Window Options:

--title "Required Application Install Completed" --message "Installation Complete. Restarting Your Mac." --icon "/usr/local/Baseline/Icons/Logo.png"

C. Dialog Failure Window Options:

--title "Something Went Wrong" --message "Please Contact the IT Department" --icon "/usr/ local/Baseline/Icons/Logo.png"

NOTE: If you copy and paste the above paths, be sure the entire path is on one line as shown in the picture. The copy and paste will add a line break that needs to be removed.

title "Installin	ng Required Applications"message "This may take a few minutes"icon "/usr/local/Baseline/Icons/L	.ogo.png"
Dialog Success	Window Options ⑦	
SwiftDialog options	s for the Success Dialog window.	
title "Require	ed Application Install Completed"message "Installation Complete. Restarting Your Mac."icon "/usr/l	ocal/Baseline/Icons/Logo.png"
Dieles Feilune M		
Dialog Failure v	Vindow Options	
SwiftDialog options	Vindow Options s for the Failure Dialog window.	
SwiftDialog options	Vindow Options s for the Failure Dialog window. inig Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/Icons/Logo	.png"
SwiftDialog options	Vindow Options s for the Failure Dialog window. ning Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/lcons/Logo	.png"
SwiftDialog options	Vindow Options s for the Failure Dialog window. ning Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/lcons/Logo	.png"
SwiftDialog options title "Someth	Vindow Options for the Failure blailog window. hing Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/lcons/Logo	.png"
SwiftDialog options title "Someth Exit Condition Define a file or fold	Vindow Options s for the Failure Dialog window. ning Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/Icons/Logo ler path. If this file or folder exists, Baseline will exit quietly without processing any items.	.png"
SwiftDialog options title "Someth Exit Condition Define a file or fold	Vindow Options s for the Failure Dialog window. ning Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/Icons/Logo ler path. If this file or folder exists, Baseline will exit quietly without processing any items.	.png"
SwiftDialog options title "Someth Exit Condition Define a file or fold	Vindow Options for the Failure blailog window. hing Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/lcons/Logo ler path. If this file or folder exists, Baseline will exit quietly without processing any items.	,png"
SwiftDialog options title "Someth Exit Condition Define a file or fold	Vindow Options for the Failure Dialog window. ning Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/Icons/Logo ler path. If this file or folder exists, Baseline will exit quietly without processing any items.	.png"
SwiftDialog options title "Someth Exit Condition Define a file or fold Bail Out File	Vindow Options for the Failure Dialog window. ning Went Wrong"message "Please Contact the IT Department"icon "/usr/local/Baseline/Icons/Logo ler path. If this file or folder exists, Baseline will exit quietly without processing any items.	.png"

#### 11.Click File and select Save.



12.Configure the following:

- A. Save As: Executives
- B. Where: Desktop
- C. Sign profile with: Do not sign
- D. Click Save.

NOTE: We are saving the mobile configuration file to the Desktop in case edits are needed in the future. We are NOT going to use to use a mobile configuration profile with Baseline. We will use a plists with Baseline and add them to a custom package that we will create later in this guide. This will ensure the plist configuration files are in place when Baseline runs and will guarantee the InitialScripts are completed. A mobile configuration file coming from Jamf Pro may not install in time for Baseline and that would cause Baseline to fail.

Save As: Executives	
Tags: Where: Desktop	
Sign profile with: Do not sign	



13. Select Payload then Export Configuration payload as Plist.



- 14.Configure the following:
  - A. Save As: Executives.plist
  - B. Where: Desktop
  - C. Click Export.

Save As:	Executives.plist	
Tags:		
Where:	Desktop	•
	Cancel	Export

15.Confirm both files are saved on the Desktop.



16.Control-click on the Executives mobile configuration profile and select Duplicate.



17. Rename the Executives mobile configuration profile to Staff.



18. Switch back to iMazing Profile Editor.

19.Click File and select Open.

File	Edit	Payload	View	Тос
New			Я	s n
Open	l		Я	0
Open	Recen	t		>)



20. Navigate to the Staff mobile configuration profile on the Desktop and click Open.

Nama	Cine	Kind		Data Addad
Staff	Size	3 KB Config	n Profile	Today at 7:44 PM
-				

21.Select the General payload .

22.Change the name from Executives to Staff.

23.Click the Baseline payload.

	•••	Staff     IOS     macOS     tvOS     watchOS     Q     Search Preference	
	Configured Domains	General	
21—	• General iOS, macOS, tvOS, and watchOS	Use this section to define general settings (IOS 4.0+) (macOS 10.7-) (tvOS 5.0+) (watchOS 1.0+)	
23—	Baseline by Second Son C     macOS		
	Available System Domains	Name     The human-readable name for the profile. This value is displayed on the Detail screen. It doesn't have to be unique.	
	Restrictions iOS, macOS, tvOS, and watchOS	Staff	<u> </u>
	Domains iOS and macOS	Required	
	Global HTTP Proxy iOS, macOS, and tvOS	<ul> <li>Identifier</li> <li>The reverse-DNS style identifier ('com.example.myprofile', for example) that identifies the profile. This string is used to determine whether a new profile should replace an existing one or should be added.</li> </ul>	

24.Scroll down to Installomator Labels.

- A. Click Add (+).
- B. Display Name: VLC
- C. Label: vlc
- D. Icon: https://github.com/HCSTech/icons/blob/main/VLC.png?raw=true

NOTE: We are adding VLC to this configuration profile so we can show the difference between what the Executive and Staff deployment workflows will install when Baseline runs.

• •	•	Staff		≒ iC	S macOS tvOS watchO	S 🕞 Q Search Preferences	
Configur	ed Domains			Raselin	e by Second Son	Consulting	
•	General iOS, macOS, tvOS, and watchOS			Baselii	ne by Second Son Consulting (	Configuration	macOS
• Å	Baseline by Second Son C macOS						
Available	System Domains	Baseline					
÷	Restrictions IOS, macOS, tvOS, and watchOS	InitialScripts     Define scripts that are	run immediately as the a	user logs in.			
E	Domains	Display Name	Script Path		MD5	Arguments	
505	Global HTTP Proxy iOS, macOS, and tvOS	Registration	/usr/local/Bas	eline/Scripts/reg	istration.sh		
	DNS Proxy iOS and macOS						
9	Web Content Filter iOS and macOS						
8	Certificate iOS, macOS, tvOS, and watchOS	+   -   Duplicate					
	Root Certificate						
	Certificate Transparency iOS, macOS, tvOS, and watchOS	<ul> <li>Installomator Labe</li> <li>Define Installomator lab</li> </ul>	Is ⑦ pels to be run by Baselir	ie.			
	Passcode	Display Name	Label	Arguments	Icon		
Ģ	Wi-Fi B-	Google Chrome VLC	googlechromepkg vic		https://github.com/HCS1 https://github.com/HCS1	"ech/icons/blob/main/Google_Chrome "ech/icons/blob/main/VLC.png?raw=tr	.png?raw=true ue
Ŕ	VPN iOS, macOS, and tvOS			C			
¢	App-Layer VPN iOS, macOS, and watchOS						



25. Save the changes we made to the Staff configuration profile. Select File then Save.



26.Select Payload then Export Configuration payload as Plist.



- 27.Configure the following:
  - A. Save As: Staff.plist
  - B. Where: Desktop
  - C. Click Export.

<u> </u>	Staff.plist	Save As:
		Tags:
_		
— B	Desktop 🗧 🔁 👻	Where:
- C	Cancel Export	

28.Confirm both files are saved on the Desktop.



29.Create a folder on your Desktop named Baseline Configuration Files and copy the Executive and Staff plists and mobile configuration files on your Desktop to the folder.

_		
	<	> Baseline Configuration Files
		Name
		Executives
		Executives.plist
		Staff
U	2	Staff.plist



30. Click iMazing Profile Editor menu and select Quit iMazing Profile Editor.



This completes this section.

In the next section, we will create a custom package that installs the plists and other configuration files needed for Baseline to run during a Mac deployment.



# Section 3: Create an asset package for Baseline

### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

## Hardware and Software:

Requirements for this section:

- Jamf Composer
- Sample Files Downloaded in section one of this guide.
- Plists created in section two of this guide.
- A signing certificate. IF YOU DON'T HAVE A SIGNING CERTIFICATE THE PACKAGE CREATED IN THIS SECTION WILL FAIL DURING PRESTAGE ENROLLMENT.

A signed package is required when adding packages to a computer PreStage enrollment in Jamf Pro. A signing certificate can be from your Apple developer account or from your Jamf Pro server. If you already have a signing certificate configured in your settings of Jamf Composer you can continue on with this section of the guide. If you do NOT have a signing certificate from Apple, you can create one using your Jamf Pro server by following the instructions at the link below. This guide will NOT cover the creation of a signing certificate. Once you have a signing certificate, you can configure JamfJamf Composer to use it in the Settings > Packages section. See picture below.

Composer Preferences	<b>Packaging</b>	Exclusion List	Advanced
✓ Build flat PKGs			
Sign with: Developer ID Installer: Kei	ith MITNICK	(K)	) 😂
Remove .DS_Store files in common location	ons		
🗸 Scan images when building DMGs			
🗸 Play sounds			
Reveal in Finder when done			
Executable Types in PKGs: All executables	are Univers	al	0
DMG Target Filesystem: Prompt 📀			
<b>x</b>	Car	ncel	Save

## https://learn.jamf.com/en-US/bundle/technical-articles/page/Creating a Signing Certificate Using Jamf Pros Built-in CA to Use for Signing Configuration Profiles and Packages.html

In this section we will use Jamf Composer to create a package that contains all the configuration files needed for Baseline to run during a Mac computer deployment. This guide will NOT cover downloading Jamf Composer from Jamf. It is assumed that Jamf Composer is already installed on your Mac per the instructions in section one of this guide.

1. Open Jamf Composer located in /Applications/Jamf Pro/. If this is the first time opening Jamf Composer, you will be greeted with a message requiring full disk access. You need to allow full disk access before continuing with Jamf Composer. Follow the onscreen instructions to enable full disk access for Jamf Composer.

<	> Applications
	Name
~ 🐝	Jamf Pro
	🍄 Composer



# 2. Click Cancel.

Monitoring Installation			
🎋 Package Manifests			
> Pre-Installed Software	New & Modified	Monitor File	Normal Snapshot
User Environment	Snapshot	System Changes	
	Take a si	napshot that watches f	or new files, as well as any files that are
	modified	J. A snapshot will be tai	ken before and after the installation proc
	and ther	the two snapshots wil	I be compared.

3. Open the Sample Files folder that you downloaded in section one of this guide. Drag the Baseline\_Assets.pkg into the sidebar of Jamf Composer underneath the word PACKAGES. You will see a green plus sign indicating the file will be copied into Jamf Composer.

Composer 11.4.0		E	D	Q Search		🚞 Sample Files
	New				Name	^
SOURCES					🖉 Baselin	e_Assets.pkg
DADYADTO					🗋 🗋 Baselin	eConfig.plist
PAGRAGES					🗮 Logo.pi	ng
					📄 registra	tion.sh
					😺 Show N	te Your ID 3.0.pkg
					😺 Verified	Tokens-1.0.pkg

4. Click Convert to Source.





5. Select Baseline\_Assets under the SOURCES section and expand all the folders on the right side as shown below.

NOTE: We provided this package as a template to be used for Baseline to make it easier to deploy the settings and configuration files needed for Baseline.

e e Composer 11	.4.0		Z	2	Q Search		
		New	Build as DMG	Build as PKG		Search	
SOURCES	V local V Baseline V Icons V Scripts V Packages						
	Packages		Owner: Group: Everyone:	root (0) wheel (0)	<b>8</b>	R W X V V V V V V Mode: 775	÷

6. Open the Sample files and Baseline Configuration Files folders and organize the folders as shown below.





- 7. Copy the files into the following locations in Jamf Composer:
  - A. Copy the Executives and Staff plists from the Baseline configuration files folder into the Baseline folder in Jamf Composer.
  - B. Copy the BaselineConfig.plist from the Sample Files folder to the Baseline folder in Jamf Composer.
  - C. Copy the Logo png file from the Sample Files folder to the Icons folder in Jamf Composer.
  - D. Copy the registration.sh file from the Sample Files folder to the Scripts folder in Jamf Composer.
  - E. Copy the VerifiedTokens-1.0.pkg file to the Packages folder.

NOTE: Make sure your folder structure in Jamf Composer looks like the picture below before continuing onto the next step.

🗧 🗧 🗧 Composer 1	11.4.0		K	2	Q Search
		New	Build as DMG	Build as PKG	Search
SOURCES    Sources  PACKAOES  Baseline_Assets.pkg	<pre>v usr v local v Baseline v BaselineConfig.plist v Icons v Cons v Cons v Cons v Scripts v registration.sh v Packages v VerifiedTokens-1, v Staff.plist</pre>	0.pkg		B C D E	
	Baseline		Owner:   Group:   Everyone:	root (0) wheel (0)	R         W         X           ✓         ✓         ✓         ✓           ✓         ✓         ✓         ✓         ✓           ✓         ✓         ✓         ✓         ✓         ✓         ✓           ✓         ○         ✓

This folder structure follows the Baseline order of operations. Here is an explanation of how it works:

Baseline Root Folder When Baseline runs, it looks in the Baseline root folder for a BaselineConfig.plist which tells Baseline to run any Initial Scripts, for example, (registration.sh). It also contains the Executives.plist and Staff.plist which are configuration files that tell Baseline what to install.

*Icons Folder* The registration.sh script contains code that looks for a file named Logo.png. Think of this file as the branded logo for your company that will appear when Baseline runs.

*Scripts Folder* The registration.sh script is an initial script that will run first when Baseline is in operation.

Packages Folder Add any packages that you want to run in this folder.



# 8. Follow these steps:

A. Select Executives.plist and change the permissions to the following:

- Owner: root
- Group: wheel
- Read only
- B. Select the Staff.plist and set the same permissions as above.
- C. Click Build as PKG.

NOTE: This sets the proper permissions for the files that we added into Jamf Composer.

Composer 1	1.4.0		A	2	Q Search	
		New	Build as DMG	Build as PKG	Search	
SOURCES Caseline_Assets PACKAGES Baseline_Assets.pkg	<ul> <li>Jocal</li> <li>Baseline</li> <li>Baseline</li> <li>Econs</li> <li>Logo.png</li> <li>Scripts</li> <li>registration.sh</li> <li>Packages</li> <li>Staff.plist</li> </ul>	pkg	А — В			
	Executives.plist		Owner: Group: Everyone:	root (0) wheel (0)	R W X C V O C V O Mode 444	Use this area to set the permissions for Executives.plist and Staff.plist

9. Save the package to the Desktop. Click Save.

NOTE: You may be prompted to enter your administrative credentials to sign the package.

Name	A Date Modified	Size
Baseline Configuration Files	Yesterday, 9:23 PM	
Sample Files	Yesterday, 9:01PM	

10.Confirm the Baseline\_Assets.pkg was created on the Desktop.





11.Confirm the Baseline\_Assets.pkg is signed by opening the Terminal application located in /Applications/Utilities.



12.Enter the following command:

pkgutil --check-signature /Users/work/Desktop/Baseline\_Assets.pkg

NOTE: The path to your Baseline\_Assets.pkg will be different from the path shown above.

You will see information similar to the picture below indicating the package was successfully signed. Quit the Terminal application once you confirmed your package is signed.

0 • •	🚞 work — -zsh — 102×30
work@NYENNJG3H ~ % pkg	utilcheck-signature /Users/work/Desktop/Baseline_Assets.pkg
Package "Baseline_Asse	ts.pkg":
Status: signed by a	developer certificate issued by Apple for distribution
Certificate Chain:	
<ol> <li>Developer ID In</li> </ol>	staller: Keith MITNICK (K )
Expires: 2027-0	2-01 22:12:15 +0000
SHA256 Fingerpr	int:
70 98 81 7A	14 4B AE B6 B5 B7 E7 2E 85 69 12 87 AC 48 C5 FE 87 80
75 9D 71 3E	3B CE CD C3 90 B5
<ol><li>Developer ID Ce</li></ol>	rtification Authority
Expires: 2027-0	2-01 22:12:15 +0000
SHA256 Fingerpr	int:
7A FC 9D 01	A6 2F 03 A2 DE 96 37 93 6D 4A FE 68 09 0D 2D E1 8D 03
F2 9C 88 CF	B0 B1 BA 63 58 7F
3 Apple Root CA	
Evoiree: 2025-0	2-00 21.40.26 10000
SUA256 Eingerer	int.
B0 B1 73 0F	CB C7 FE 45 05 14 20 49 F1 29 5E 6E DA 6B CA ED 7E 20
68 C5 BE 91	B5 41 10 01 F0 24
08 C3 BL 71	00 ML 10 01 10 14
WOTKONVENNIG3H ~ %	

13.Upload the package to the Jamf Pro server. Log into your Jamf Pro server with administrative credentials.





- 14.Click Settings.
- 15. Click Computer Management.
- 16.Click Packages

	Pro Pro			\$ \$
	없 Dashboard	Settings		
	Co Devices >	Search		
14 —	© Settings	All System Global Jamf apps Self Service 14 settings	Server Network Computer management C	evice management User management Information
16 ——		Packages Upload packages, configure settings, and set deployment priority	Computers, set parameters	Printers Configure printers to deploy to computers
		Directory bindings Allow Jamf Pro to bind computers to a directory service	Disk encryption configurations Use to manage and enable FileVault on computers	Dock items Manage Dock items on computers
		Patch management  Add external patch sources and set number of times to retry deployment	Configure inventory information to collect for computers	Inventory display Select the attributes to display in a simple computer search

17.Click New (+).

Settings : Computer management	
	+
A Packages	New

- 18.Select the following:
  - A. Category: Select a category of your choosing. This guide will use Mac Deployment Baseline.B. Filename: Drag the Baseline\_ Assets.pkg from your Desktop to the Drop file here section.
  - C. Click Save.

Pro		· - Q - &	,
n Dashboard		Settings : Computer management > Packages ← New package	
Computers	>		
Devices	>	General Options Limitations	
& Users	>	Display Name Display name for the package	
Settings		Baseline_Assets.pkg	
		Category Category to add the package to Mac Deployment Baseline File name File name File name of the package on the distribution point (e.g. "MyPackage pkg")	Baseline_Assets.p
		Baseline_Assets.pkg	
		Cancel Save	<u> </u> с



- 19.Click Computers.
- 20.Click PreStage Enrollments.
- 21.Select the Baseline Mac Deployment PreStage.

	2	Pro		Q 8
10 —	8	Computers	Computers PreStage Enrollments	
17		Policies		+ New
	LO	Configuration Profiles		
	8	Software Updates	NAME  ^ \ UAST SYNC	φ.
	٢	Restricted Software	Baseline Mac Deployment Today at 6:00 PM	
		Mac Apps		
		Patch Management	21	
		eBooks		
		Groups		
		Smart Computer Groups		
		Static Computer Groups		
		Classes		
		Enrollment		
		Enrollment Invitations		
20 —		PreStage Enrollments		

22.Select Enrollment Packages.

# 23.Click Edit.



# 24.Click Add (+).

Distribution Point	
None	
Cloud Distribution Point (Jamf Cloud)	



25. Locate the Baseline\_Assets.pkg, click Add.

(		
Baseline_Assets.pkg	Mac Deployment Baseline	Add

26.Click Save.

option	s Scope		
0 1 0,	General Account Settings Configuration Profiles	Enrollment Packages Distribution Point Distribution point to download the package(s) from O None Cloud Distribution Point (Jamf Cloud)	
	0 Profiles User and Location	Baseline_Assets.pkg	× (
<b>.</b> 0	Purchasing Attachments 0 Attachments	Baseline_v2.2.pkg	× (
	Certificates		
÷	Enrollment Packages 2 Packages		

# 27.Click Save.

Confirm PreStage Acco Creation	unt Settings
PreStage account settings creation to save. Do not refresh.	may take extended time
	Cancel

28.Log out of the Jamf Pro server. This completes this section.

In the next section, we will deploy a Mac computer using the PreStage with Baseline.



# Section 4: Deploying a Mac Computer with Baseline

#### What You'll Need:

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

#### Hardware and Software:

Requirements for following along with this section:

NOTE: Erase all contents and settings on your test Mac computer BEFORE continuing with this section.

- A Mac computer assigned to the Baseline Mac Deployment PreStage.
- Administrative access to the Jamf Pro Server

NOTE: This guide will NOT cover all the screens shown during the Automated Device Enrollment process.

1. Power on your Mac computer and follow the on screen instructions. When you get to the Remote Management screen, Click Enroll and continue to follow the on screen instructions. Baseline will start once the user is logged in.



2. If you're using a portable Mac computer, IE.. MacBook Air, and the power supply is not connected, you will be greeted with the message below. Once you connect power, Baseline will continue the deployment process.





- 3. Enter your information at the Register your Mac screen.
- 4. Select Executives from the Deployment Type menu.
- 5. Click OK.

NOTE: This information is customizable to your needs. It can be edited in the registration.sh file located in the Sample Files folder you downloaded in section one of this guide. In this example, Asset Tag, Department, and Building information will be sent to the computer record on the Jamf pro server.

	Register you	r Mac at HCS	
TECHNOLOGY GROUP	Computer Name *	keith's MacBook Air	2
	Asset Tag *	8675309	3
	Department *	Information Technology	
	Building *	HCS - New York	
	Deployment Type *	Executives OF	<b>—</b> 4
		Required Eader     OK	<u> </u>

6. When presented with the message below, it may take a few minutes for Baseline to start the process of installing applications and running policies. This is because registration.sh is setting the Building and Department and running a Jamf recon.

Gathering configuration information for your Mac.		
HĈS	This may take a few minutes to complete. Please be patient.	

7. Baseline is now installing the applications we configured for the Executives Deployment type. Installomator downloads Google Chrome directly from Google's servers, validates it for authenticity, and then installs the package. Baseline shows the progress while Installomator does it's job. Show Me Your ID 3.0 is coming from the custom trigger policy we created on the Jamf Pro server.

(	Installing Required Applications	
	This may take a few minutes	
HĈS	O Google Chrome	Downloading 🔾
	Verified Tokens	
	i Show Me Your ID 3.0	
-		
	Google Chrome	ОК



8. A green check indicates the software was successfully installed. If there was a failure, a red X will be shown on this screen.

[	Installing Required Appl	ications		
	This may take a few minutes			
HĈS TECHNOLOGY GROUP	Google Chrome	<b>Ø</b>		
	Verified Tokens	0		
	5 Show Me Your ID 3.0	Installation Finished 🥑		
Show Me Your ID 3.0				
		OR		

9. If everything was installed successfully, you are presented with the screen below. If there were any errors, they would be shown to you on this screen as well. Click Restart Now.

NOTE: If you don't require a restart after a Mac computer deployment you can change this to Logout by adjusting your settings files for Baseline.

Required Application Install Completed				
HĈS	Installation Complete. Restarting Your Mac.			
	1:55	Restart Now		

10.Log into your Mac and select Launch Pad from the Dock.



11.Confirm Google Chrome, Show Me Your ID 3.0, and Verified Tokens are installed. This is the software that we specified in the Executives plist.





12.Log into your Jamf Pro server with administrative credentials.

8

- 13.Click computers.
- 14.Click Search Inventory.

15.In the field, enter the name of the Mac computer that you just enrolled.

16.Click Search.

Computers	Q keith's MacBook Air S Computers	~ Search	—16
Inventory 14 Search Inventory	Advanced Computer Searches	∧ é SITE	

17.Select your computer from the list.

Jt
~
/

- 18.Click Inventory.
- 19. Select General if it's not already selected.

20.Confirm the Asset Tag you entered at the Baseline registration screen is there.

	<sup>computers</sup> ← keith's MacBook Air			
18—	Inventory Management History			
19—	General Asset Tag: 8675309	20		



- 21.Select User and Location.
- 22.Confirm the Department and Building information you entered at the Baseline registration screen is there.

	computers ← keith's MacBook Air					
	Invent	ory Management	His	story		
	1	<b>General</b> keith's MacBook Air		User and Locatio	'n	
	<b></b>	Hardware MacBook Air (M2, 2022)		Username:		
		Operating		Full Name:		
	4	System macOS 14.4.0		Email Address:		
18	User and Location		Phone Number:			
		Position:				
		occurry		Department:	Information Technology	10
	<u>,</u>	Purchasing		Building:	HCS - New York	I9
		Storage 1 Drive		Room:		J

23. This step is OPTIONAL: If you want to test the Staff deployment, Erase all contents and settings on your Mac and start the deployment process over following the steps in this section but this time select Staff as the deployment type. The Staff deployment installs the same apps as the Executives deployment but adds VLC as an additional application. Once done, confirm Google Chrome, VLC, Show Me Your ID 3.0, and Verfied Tokens are installed.



This completes the guide.



# Section 5: Links to all items used in this guide

Baseline: https://github.com/SecondSonConsulting/Baseline

HCS Icons: https://github.com/HCSTech/icons/tree/main

HCS Technical Articles: https://hcsonline.com/support/white-papers

iMazing Profile Editor: https://imazing.com/profile-editor/download

Installomator: https://github.com/Installomator/Installomator/tree/main

Installomator Labels: https://github.com/Installomator/Installomator/blob/main/Labels.txt

Jamf: https://www.jamf.com

SwiftDialog: https://github.com/swiftDialog/swiftDialog