Choosing the Right Deployment Method and Workflow

Mac Admin Fundamentals • Mac Admins Conference at Penn State 2014

Review for Visual Learners

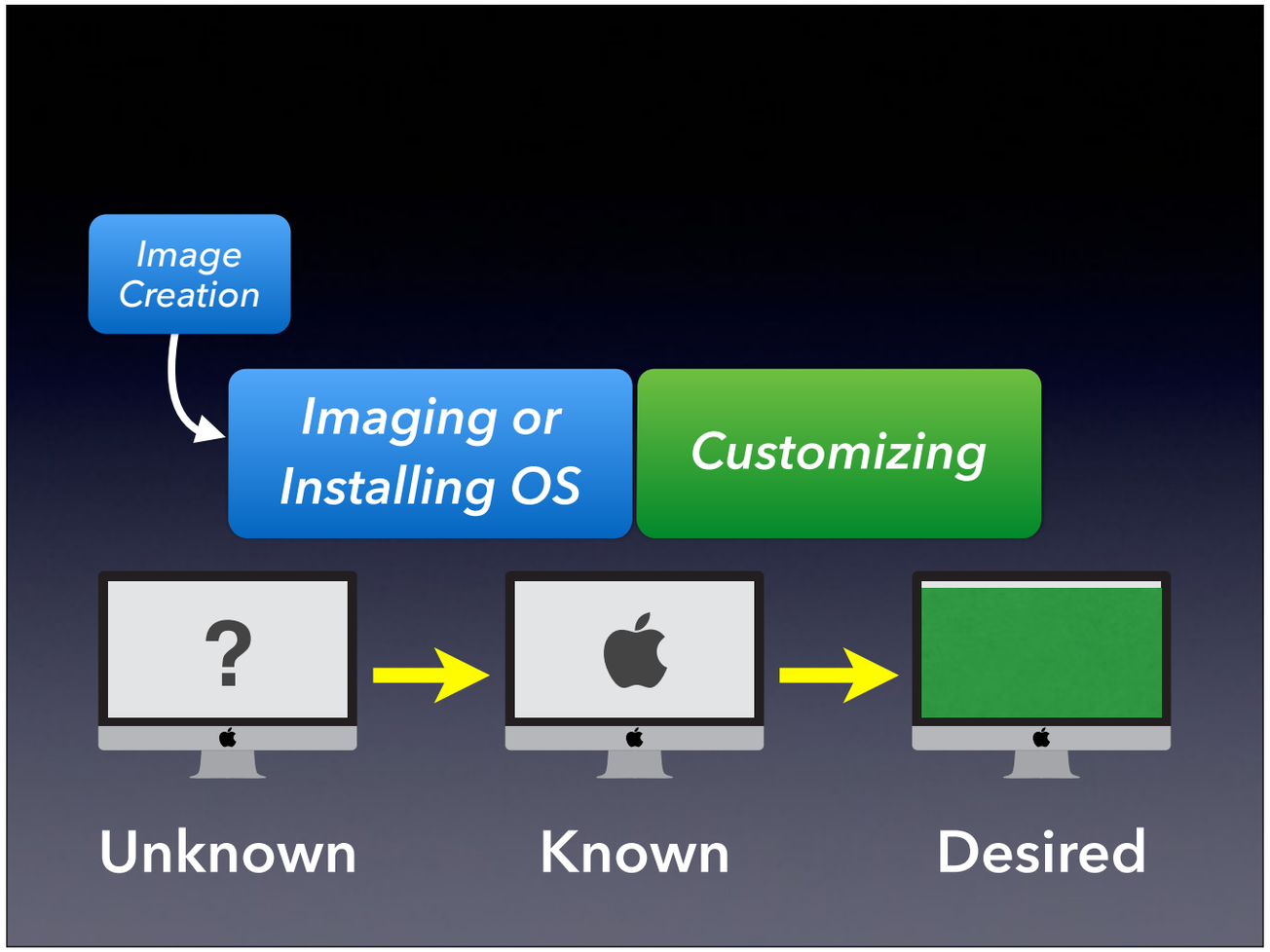
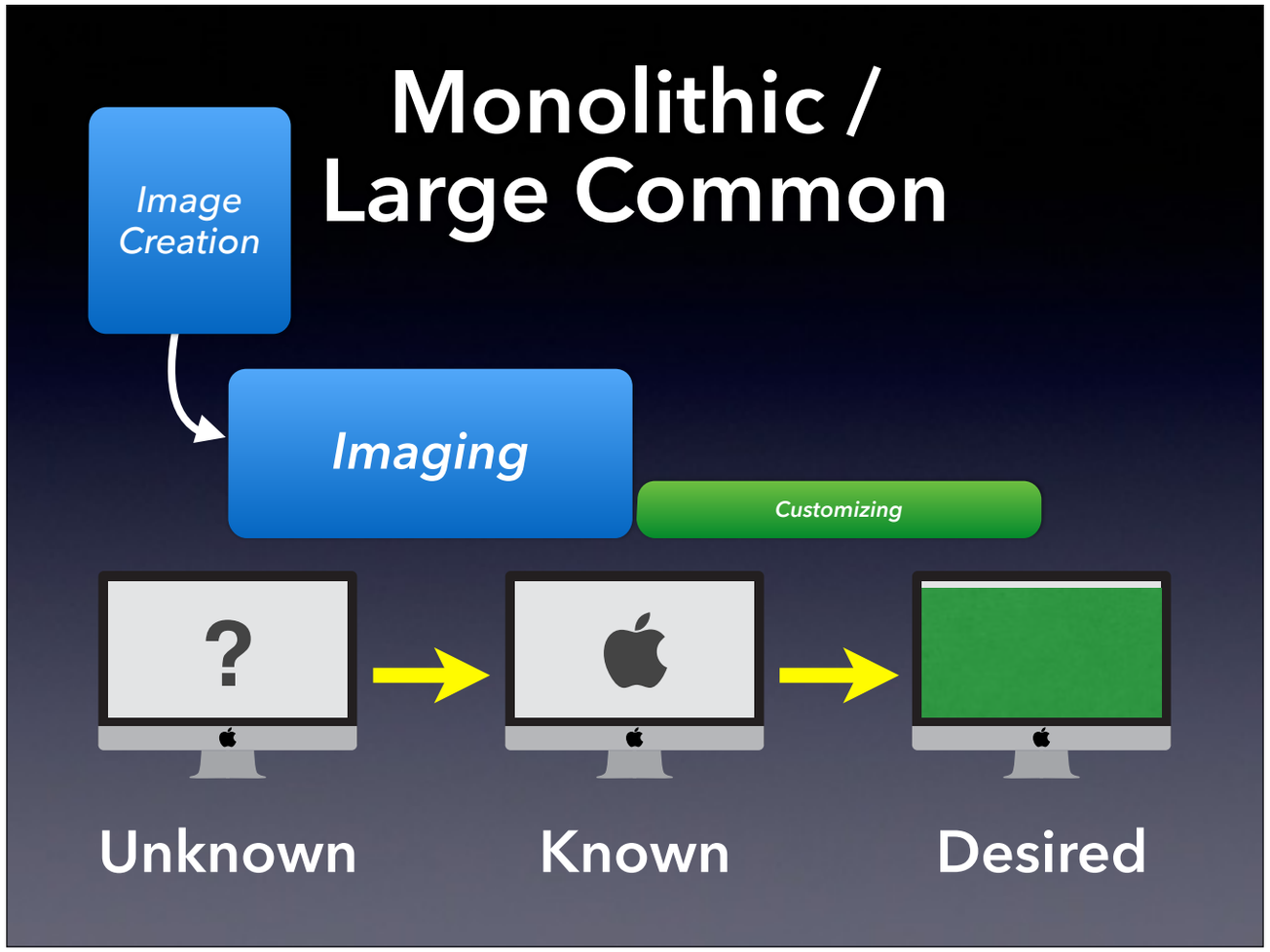
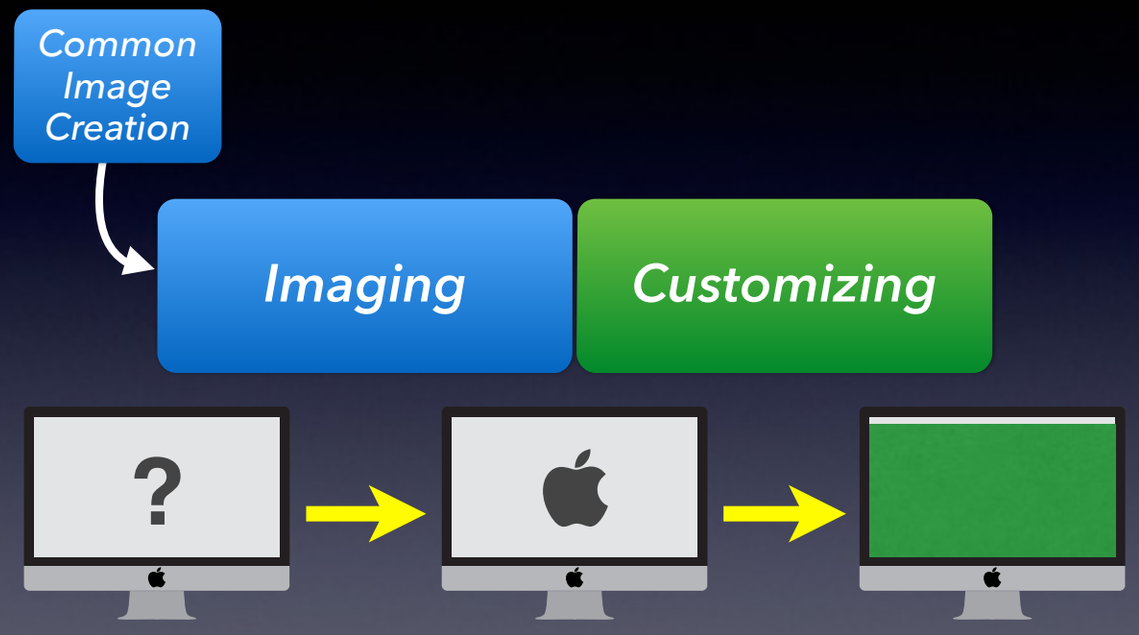


Image Creation
Imaging or Installing OS
Customizing
?
Unknown
Known
Desired

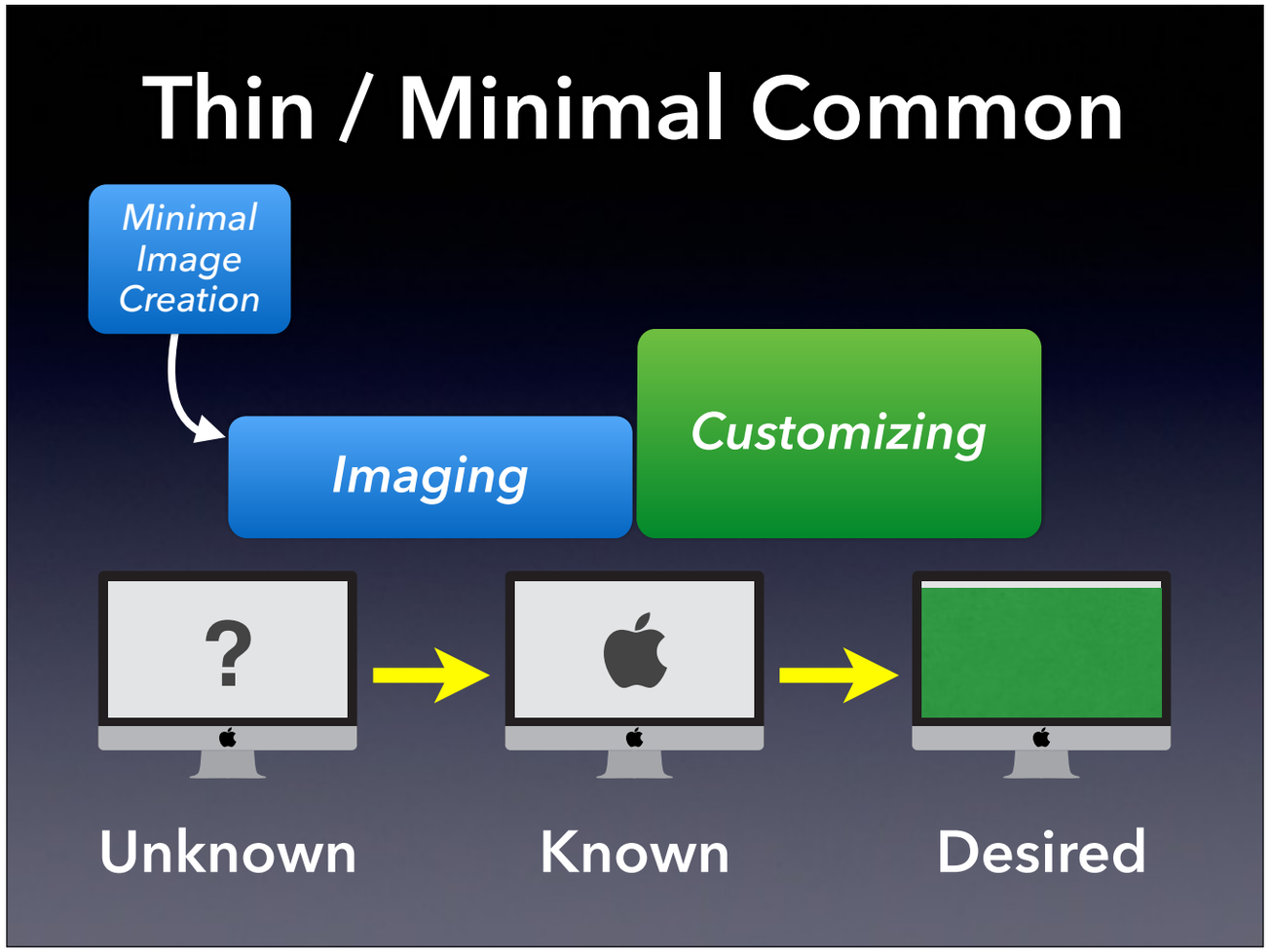
Monolithic / Large Common



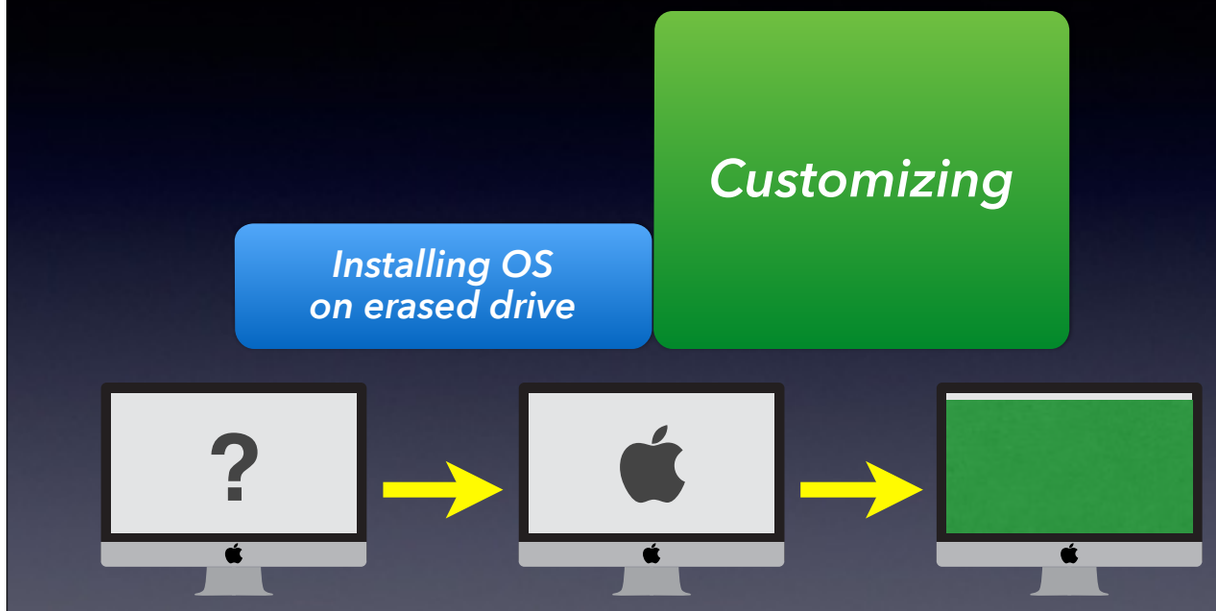
Hybrid / Common



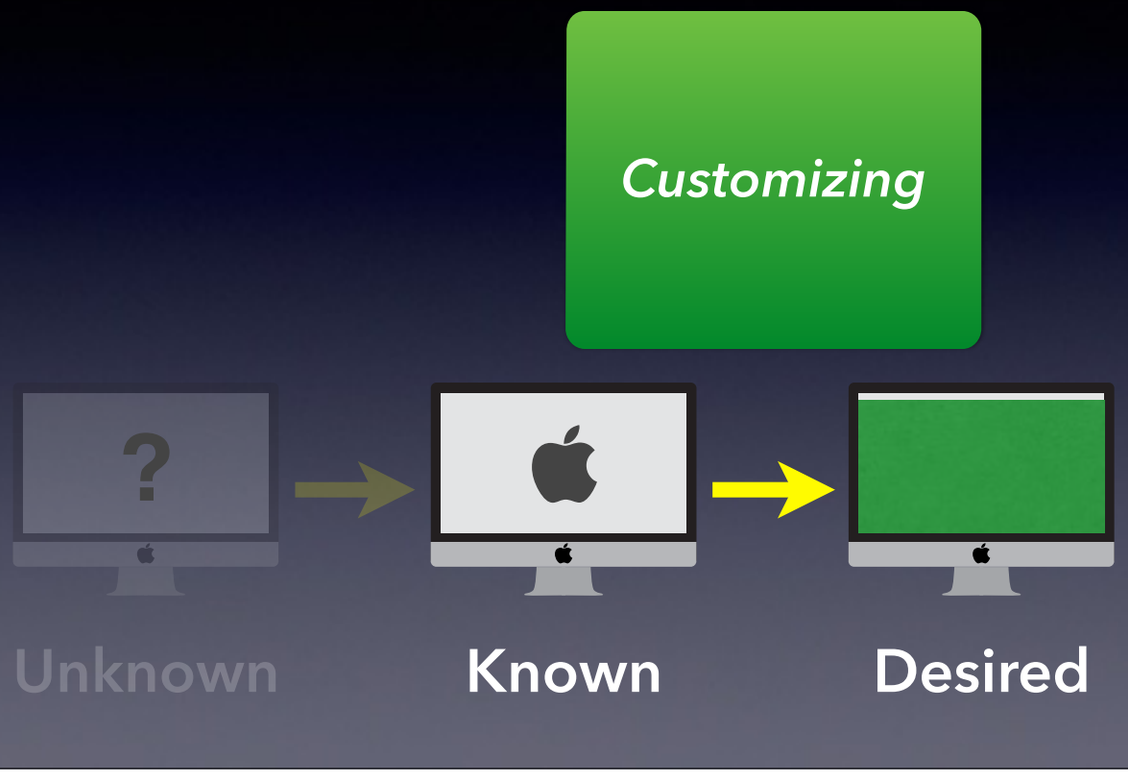
Thin / Minimal Common

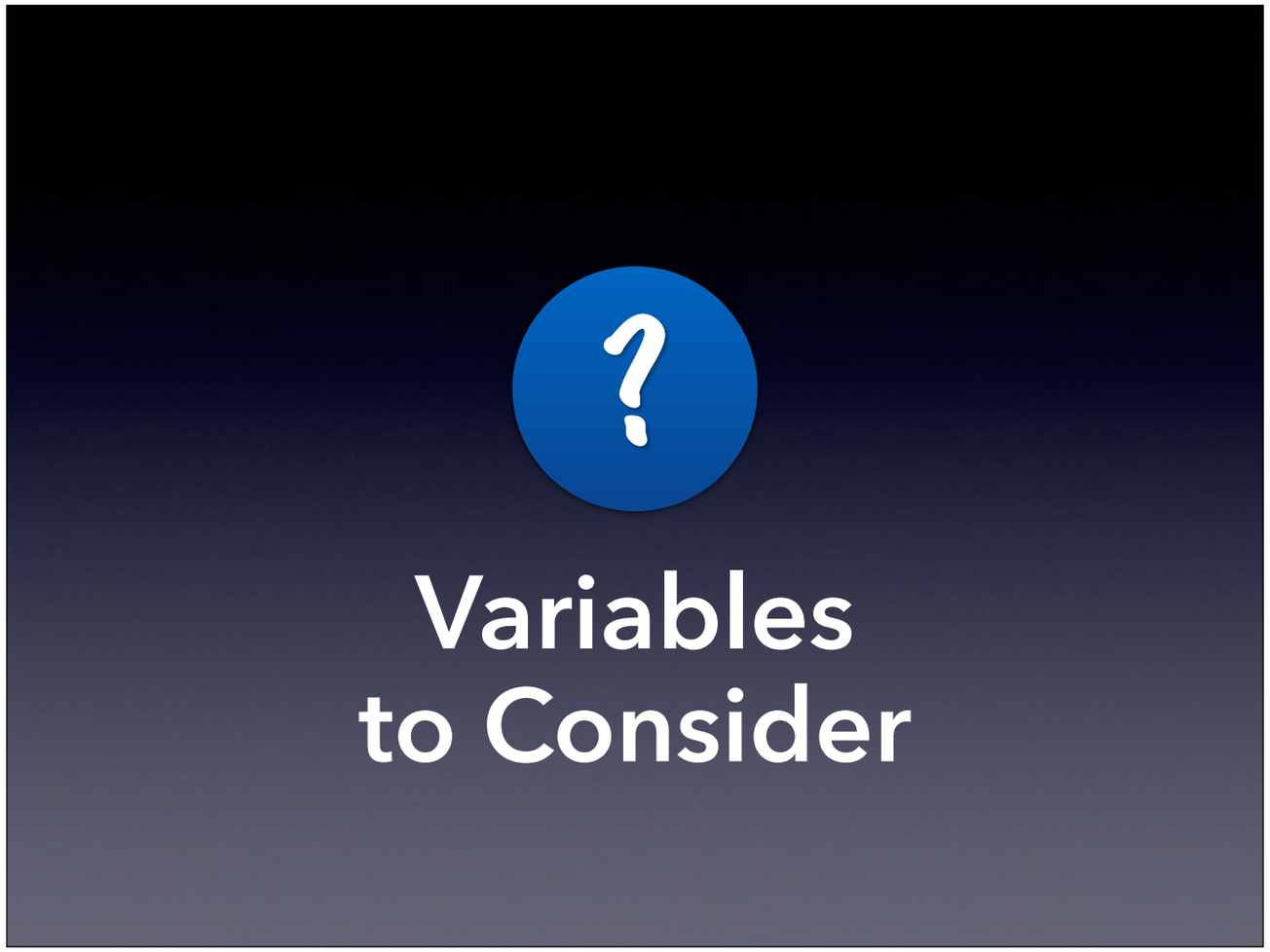


Erase & Install



Install Only




Variables
to Consider

Variables

- Scale
- Resources
- Control
- Target Hardware

Scale

- Number of computers
  - *Automate more vital as numbers grow*
- Size of payload
  - *related to network speed / turnaround time*
- Consistency of payload
  - *Less consistent = more delivered through Customizing stage*

Resources

- Hardware & Software
  - *Network (speed, capacity)*
  - *NetBoot Server and/or Web Server*
  - *Bootable Drives / Volumes*
  - *Commercial (& Free/Open) Software*
- Human
  - *Number*
  - *Skill Level*
  - *Time*

Control

- Level of Control
  - *Fully Controlled (e.g., Labs)*
  - *Partially Controlled (e.g., office/individual)*
  - *Not Controlled (BYOD, staff helps)*
- Physical Location
  - *Proximity*
  - *Variable or Fixed*

Target Hardware

- Capabilities
  - *Ports & Interfaces*
- Hardware Consistency
  - *Homogenous or Mixed*
  - *Laptop or Desktop (or both)*

What's the Right Workflow?

A: No Imaging*

Erase and Install *or* Install Only

* unless certain variables suggest a different workflow

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Erase and Install *or* Install Only

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Why Install (^image)?

- Mimics the way users would configure a Mac *(but automated)*
- Easy to maintain *(once implemented)*
- Self-documenting
- Custom OS builds not a problem
- Don’t need to wipe a Mac to start managing it *(BYOD)*

Are there **tools** that help me enter this **brave new world?**

DeployStudio

- *www.deploystudio.com*

- Erase & Install, Install Only
  - *Packages (including OS*), settings, shell scripts, files*
  - *Workflows can reference other workflows (1 level deep)*
  - *Station-specific and general configuration*

System Image Utility

- */System/Library/Core Services/ (10.8 & later)*
- *Server Admin Tools (10.7 & earlier)*

- Install Only (via NetInstall)
  - *Upgrade an in-place OS or Install on an erased drive*
  - *Build a custom OS Installer with your packages*
  - *Can allow user to select which packages to install just like with normal installers*

Apple Remote Desktop

- *App Store or VPP*

- Customizing – “manual”
  - *Packages, files, apps, UNIX commands*
  - *Install on live (booted) machine*

Munki

- *code.google.com/p/munki/*

- Customizing
  - *Built for maintenance of Macs*
  - *Install Munki hooks onto known bootable Mac and then Munki does the rest on next boot*

- CreateOSXinstallPkg
  - *code.google.com/p/munki/wiki/InstallingOSX*
  - *Converts OS installer into a package*

Casper Suite

- *www.jamfsoftware.com/products/casper-suite/*

- Erase & Install, Install Only

Absolute Manage

- *www.absolute.com/en/products/absolute-manage*

- Erase & Install, Install Only

Patchoo

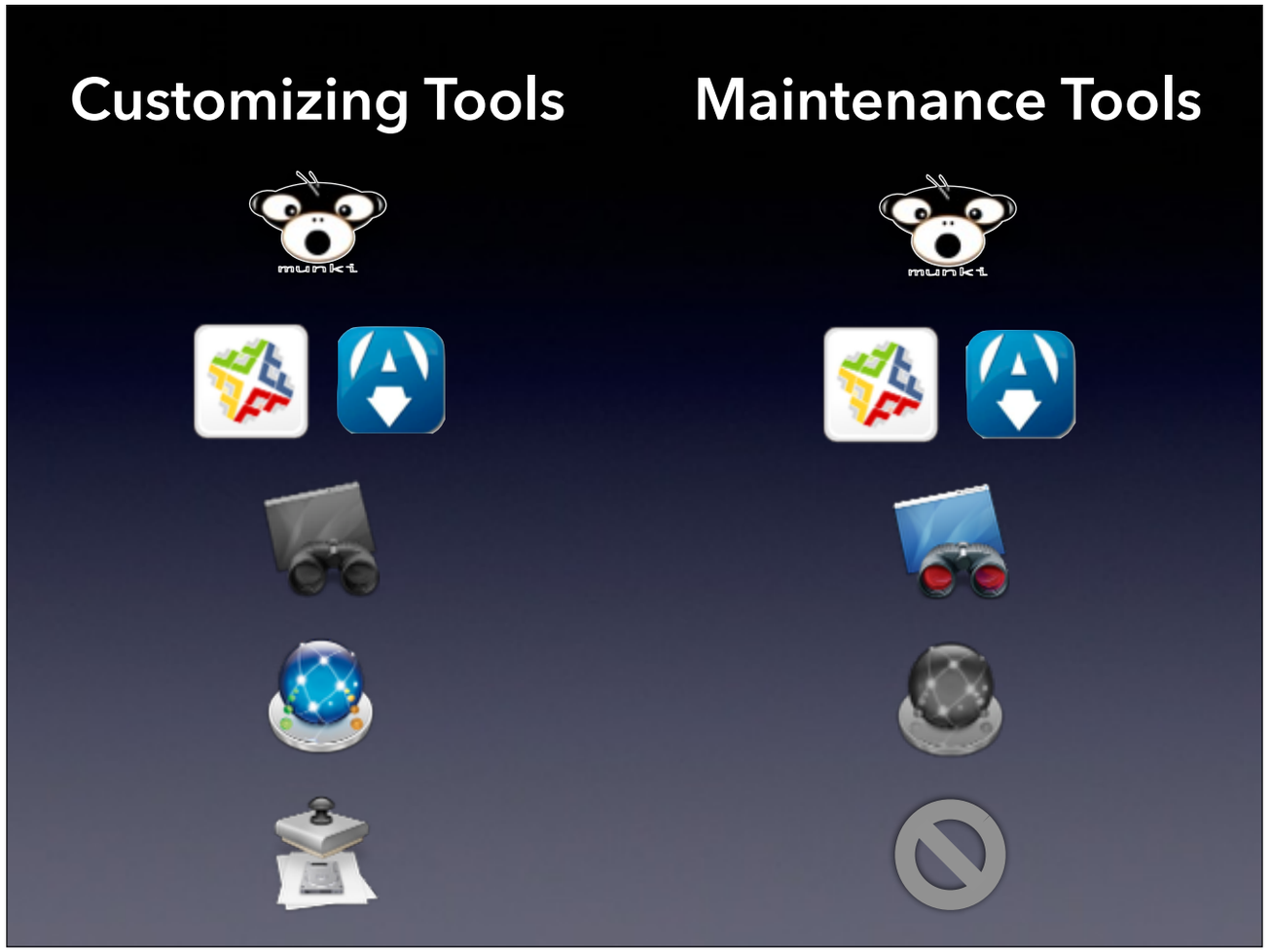
- *patchoo.github.io/patchoo/*

- Customizing
  - *Munki-like functionality for Casper Suite*

Can these tools also

do ~~the dishes~~?

maintenance



Conclusion: You can make your life much easier if you use the same tools to both customize and maintain your Macs. A single repository for all your packages! We'll talk more about specific tools a little later, but let's look at how you select the right workflow for you.

A: No Imaging*

Erase and Install *or* Install Only

* unless certain variables suggest a different workflow

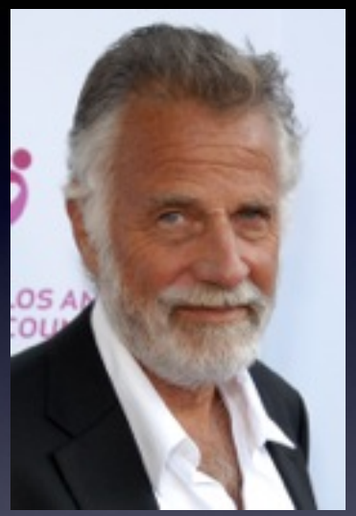
Why Common Image?

- You have to deploy OS ≤10.6
- “Nuke & Pave” regularly

More important as payload grows

- Rapid restoration a requirement
- Network restrictions

I DON'T ALWAYS CREATE IMAGES



BUT WHEN I DO, I CREATE THEM MODULARLY!

Why Create Images Modularly?

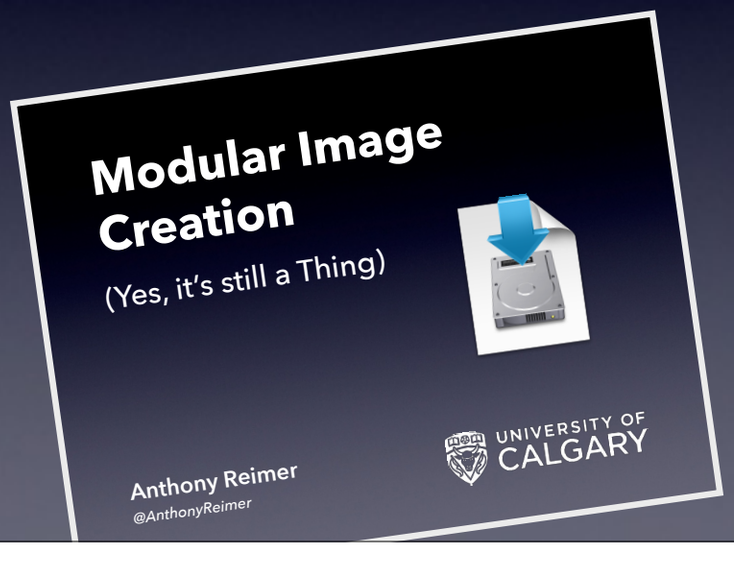
- Never booted = No cruft
- Easy to add & remove parts
- Self-documenting
- Can have multiple setups

Modular Image Creation

- AutoDMG
  - *Per Olofsson*
  - *https://github.com/MagerValp/AutoDMG*
  - *GUI, CLI*

Modular Image Creation

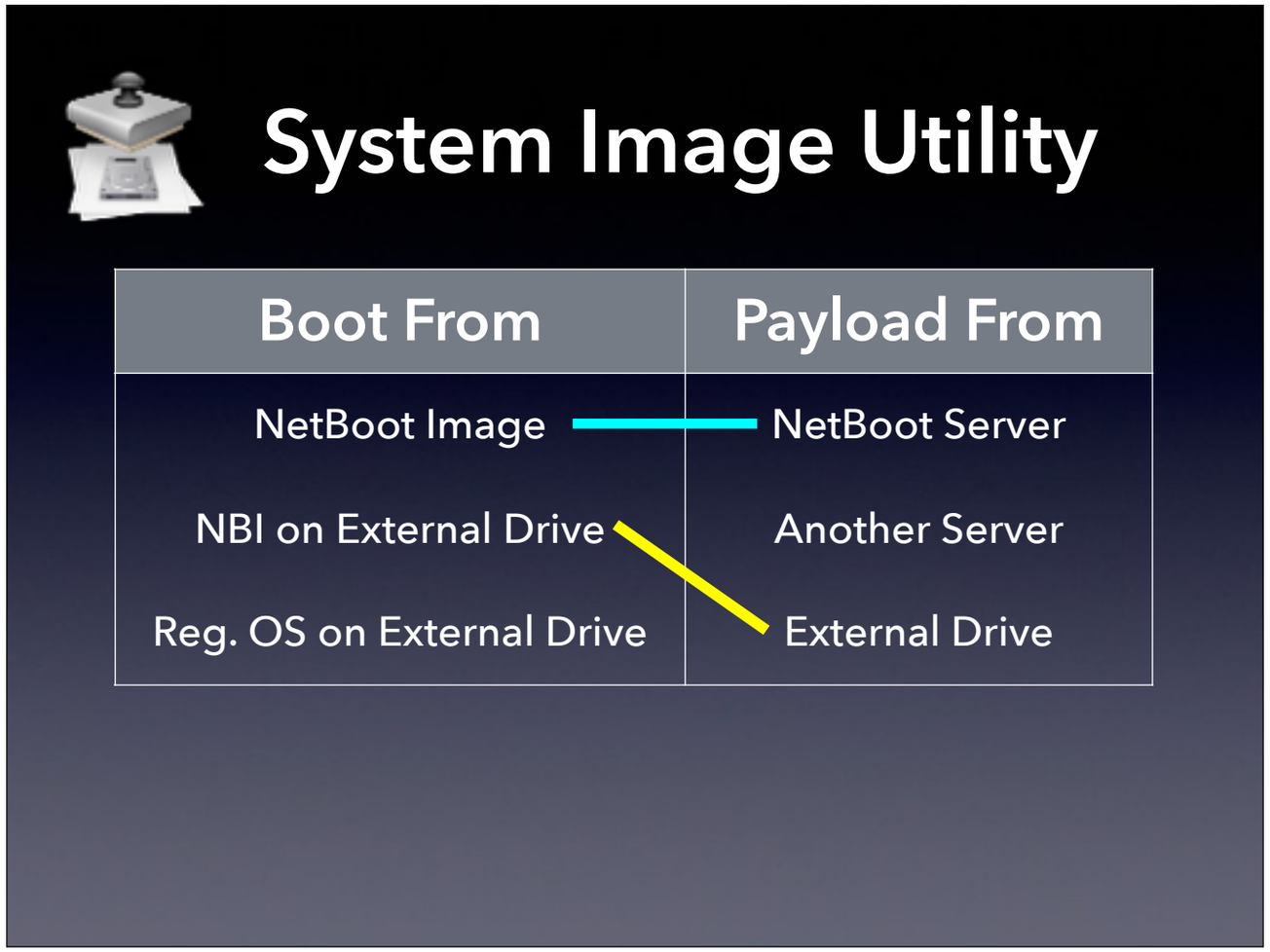
- During the Conference
  - *"Modular Image Creation"– Wed. @ 13:30*



How do you deliver the goods?

Boot From	Payload From
NetBoot Image	NetBoot Server
NBI on External Drive	Another Server
Reg. OS on External Drive	External Drive

Talk about the distinction between how you boot and where the payload is



Talk about payloads, then spend time talking about combinations, even using draw tools on screen. The king is DS…

DeployStudio

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[Spend time talking about combinations, even using draw tools on screen]

Munki (via DeployStudio)

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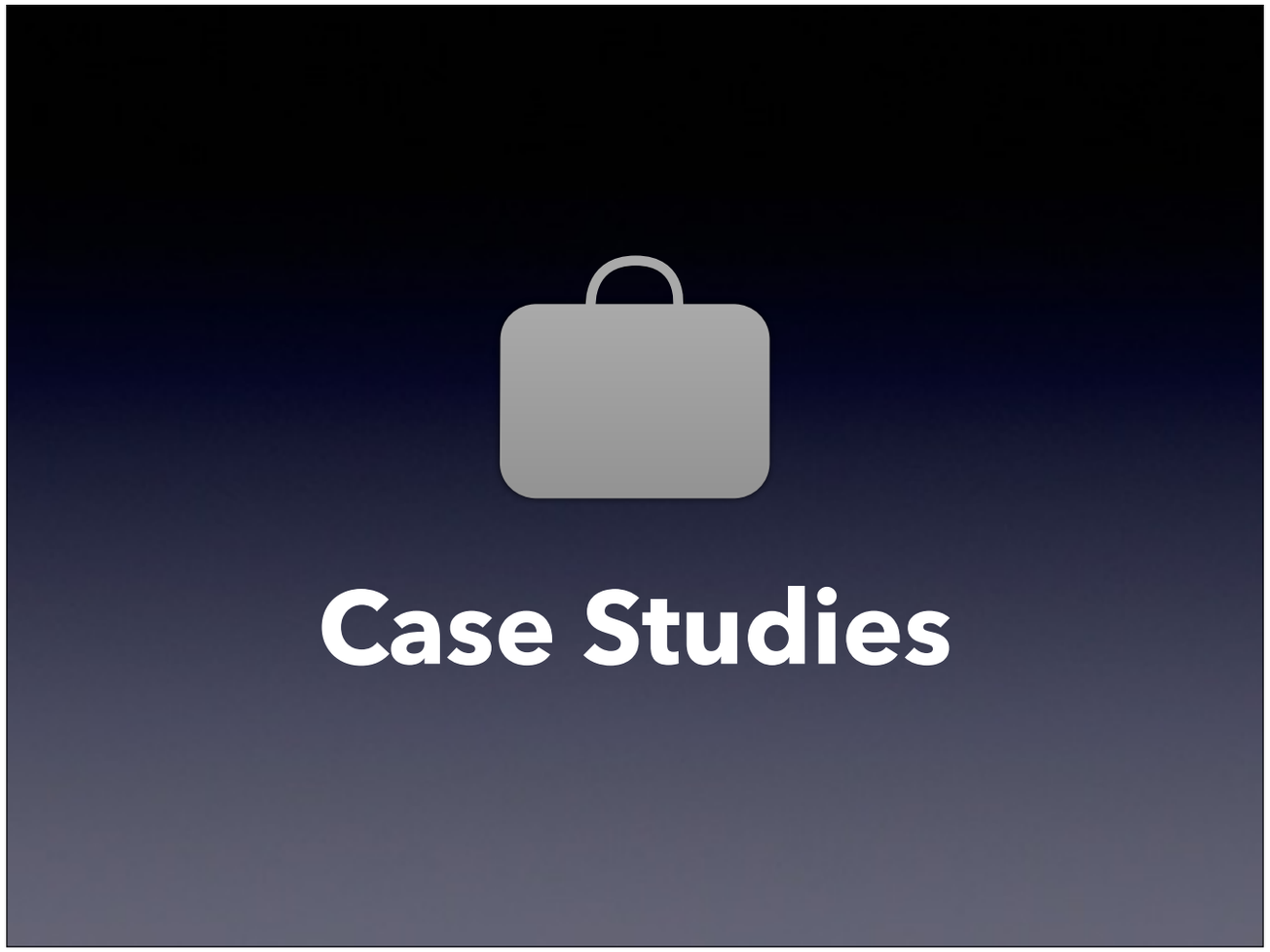
[Spend time talking about combinations, even using draw tools on screen]



Our presenters are now going to talk briefly about their workflows…

Case Studies

- Control
- Scale
- Resources
- Target Hardware
- Workflow used
- Software used