



Modern Open Source Mac Management

Jon Rhoades
St Vincent's Institute Melbourne



Hashtag : **#xw15**

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Why Open Source?



Proprietary software is an injustice.

-Richard Stallman

100

THE UNITED STATES OF DOGELAND

₪

such cash

wow

many doge

rich shibe

awesome



100
DogeCoin

₪

100

Mac OS X Sysadmin Community



“Free” / OS Advantages

- Just do it™

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- Just do it™
- No license required

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- No Salesmen will call

“Free” / OS Advantages

- Just do it™
- No license required
- No Salesmen will call
- Excellent community support

What do we want?

What do we want?

- No Mac “Servers”!



What do we want?

- No Mac “Servers”!
- Open Source or at least “Free”

What do we want?

- No Mac “Servers”!
- Open Source or at least “Free”
- Modular Components

What do we want?

- No Mac “Servers”!
- Open Source or at least “Free”
- Modular Components
- Active community

What do we want?

- No Mac “Servers”!
- Open Source or at least “Free”
- Modular Components
- Active community
- Runs from a webserver



Modern - Free, Open Source if possible, preferably not running on a Mac, Modular components, Active community, running from a webserver - Mac Management

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Deployment

- DEP – Zero touch

Deployment

- DEP
- Thin Imaging

Deployment

- DEP
- Thin Imaging
- Custom Image
 - Direct (Thunderbolt/USB 3)

Deployment

- DEP
- Thin Imaging
- Custom Image
 - Direct (Thunderbolt/USB 3)
 - Network

What do we want in an image

- Bootstrapping of deployment tools
- Settings
- Basic Applications
- Admin Accounts
- Printers
- More Applications
- OS X Updates

What do we want in an image



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What do we want in an image

- OS X Updates

Modular deployment

- De-couple settings from the imaging process
- Move settings to packages that can be re-used
- Install application later

Imaging: AutoDMG

Home Page	https://github.com/MagerValp/AutoDMG
Creator	Per Olofsson (aka MagerValp) University of Gothenburg
Intro Guide	Anthony Riemer – Penn State MacAdmins 2014 https://www.youtube.com/watch?v=VQXhTPsUlzI
Rating	<input checked="" type="checkbox"/> Apache 2.0 License

AutoDMG Video



Imaging: AutoDMG

- Image never booted – cruft free
- Packages can be reused
- Less is more!
- Multiple payload variations can be managed

Imaging: Deploy Studio

Home Page <http://www.deploystudio.com/>

Creator "Alex"??

Intro Guide <http://www.deploystudio.com/documentation/quick-install-guide>

Rating

- Donation / Ad Supported
- OS X Only
- Custom server

Imaging: Imagr

Home Page

<https://github.com/grahamgilbert/imagr>

Creator

Graham Gilbert
pebble.it

Intro Guide

<http://grahamgilbert.com/blog/2015/05/08/introducing-imagr/>

Rating

- Apache 2 License
 - Linux
 - Web Server
-

Imaging: bsdpy

Home Page	https://registry.hub.docker.com/u/bruienne/bsdpy/
Creator	Pepijn Bruienne University of Michigan
Intro Guide	http://grahamgilbert.com/blog/2015/04/22/getting-started-with-bsdpy-on-docker/
Rating	<input checked="" type="checkbox"/> Apache 2 License <input checked="" type="checkbox"/> Linux <input checked="" type="checkbox"/> Web Server

Imagr Video



Imaging: Imagr & bsdpy

- Imagr still pre-release software
- Bsdpy provided in container
- Images server over http

Munki

Home Page

<https://github.com/munki/munki>

Creator

Greg Neagle
Disney Animation Studio

Intro Guide

<https://github.com/munki/munki/wiki>

Rating

- Apache 2 License
 - Linux
 - Webserver
-

Munki 'Old' Video



MunkiAdmin

Home Page

<https://github.com/hjuutilainen/munkiadmin>

Creator

Hannes Juutilainen
University of Jyväskylä, Finland

Intro Guide

Rating

MIT

Munki 'New' Video



MunkiWebAdmin

Home Page

<https://github.com/munki/mwa>

Creator

Greg Neagle
Disney Animation Studio

Intro Guide

Rating

- Apache 2 License
 - Linux
 - Webserver
-

MWA Video



AutoPkg

Home Page <https://github.com/autopkg/autopkg>

Creator Per Olofsson (aka MagerValp)
University of Gothenburg

Intro Guide <https://github.com/munki/munki/wiki>

Rating

- Apache 2 License
- Linux
- Webserver

AutoPkgr

Home Page

<https://github.com/lindegrou/autopkgr>

Creator

Linde Group
Emeryville, California

Intro Guide

<https://derflounder.wordpress.com/2014/07/15/autopkgr-a-gui-for-autopkg/>

Rating

Apache 2 License

Autopkg(r) Video



AutoPkg

- Updates existing packages

AutoPkg

- Updates existing packages
- Can be used to create packages

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- Overrides allow your customisations to community provided packages

AutoPkg

- Updates existing packages
- Can be used to create packages
- Overrides allow your customisations to community provided packages
- Integrates with CI server

Reposado

Home Page <https://github.com/wdas/reposado>

Creator Greg Neagle
Disney Animation Studio

Intro Guide

Rating Apache 2 License
 Linux
 Webserver

Margarita

Home Page <https://github.com/jessepeterson/margarita>

Creator
Jesse Peterson
Monumus, Seattle

Intro Guide <http://macadmincorner.com/setting-up-reposado-and-margarita-on-linux-part-1/>

Rating

- Apache 2 License
- Linux
- Webserver

Reposado Video



Configuration Profiles

- 2 Types

Configuration Profiles

- 2 Types
 - Application specific profiles

Configuration Profiles

- 2 Types
 - Application specific profiles
 - OS Settings

Configuration Profile Creation: mcxToProfile

Home Page	https://github.com/timsutton/mcxToProfile
Creator	Tim Sutton Concordia University, Montréal
Intro Guide	https://github.com/timsutton/mcxToProfile https://www.justinrummel.com/using-mcxto-profile-with-the-casper-suite-for-advanced-configuration-profiles/
Rating	<input checked="" type="checkbox"/> MIT License

Configuration Profile Creation: mcxToProfile Video



Profile Deployment

- MDM

Profile Deployment

Apple Profile Manager

Home Page

<https://www.apple.com/support/osxserver/profilemanager/>

Creator

Tim Cook
Apple Inc

Intro Guide

http://docs.macsysadmin.se/2011/pdfs/Managing_Mac_Clients.pdf

Rating

- Cheap
- OS X Only
- Apple License

Profile Deployment


Apple Profile Manager

Home Page <https://www.apple.com/support/osxserver/profilemanager/>

Creator Tim Cook
Apple Inc

Intro Guide http://docs.macsysadmin.se/2011/pdfs/Managing_Mac_Clients.pdf

Rating

- Cheap
- OS X Only
- Apple License
- 

Profile Deployment

- MDM
- Self Service
 - Web Download
 - Other electronic distribution

Profile Deployment: Package

To add:

```
/usr/bin/profiles -I profileName.mobileconfig
```

Remove:

```
/usr/bin/profiles -R profileIdentifier
```

Profile Deployment

- MDM
- Self Service
 - Web Download
 - Other electronic distribution
- Package

Profile Deployment

- MDM
- Self Service
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 - Other electronic distribution
- Package
- Puppet

Profile Deployment

- MDM
- Self Service
 - Web Download
 - Other electronic distribution
- Package
- Puppet
- Munki

Profile Deployment Munki Video



Authentication?

- Use AD



Conclusion

- Overwhelmed?

Conclusion

- Overwhelmed?
- Inspired?