Troubleshooting Tools & Tricks

It's Broke. Now Fix It.

Mac Admin Fundamentals • Mac Admins Conference at Penn State 2014

How many of you have been a Mac Admin for less than 2 years? Less than 5? Less than 10 years?

We're not here to tell you how to reset the SMC or zap the PRAM. We're here to get a little more advanced than that. We're here to give you some toolsets you might not have thought about otherwise to handle more complicated settings.

Split half testing for extensions conflicts may have gone the way of the Dodo, but there are some good things left from the bad old days.

We're going to start with diagnostics and logging.

If you've chosen to setup a DeployStudio distribution system for images, there's a really great hidden benefit associated with that. DeployStudio's NetBoot set has some really nice side effects.

DS carries with it a whole host of tools for diagnostics, including, but not limited to Disk Utility, Network Utility, and others. Boot yourself in DS, login, and then you've got the basics in a way that you can both observe via VNC/ARD, and do boot-volume repair (except for certain cases, more on that in a second.)

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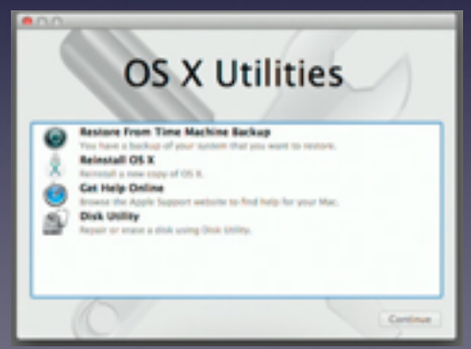
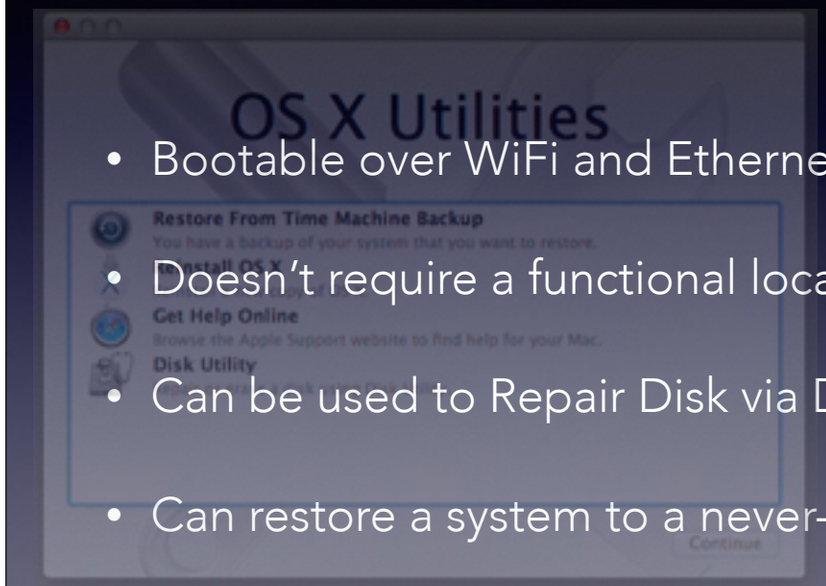
Deploy Studio

- Bootable over WiFi and Ethernet
- Doesn’t require a functional local disk
- Can be used to Repair Disk via Disk Utility
- Can be customized to add more Utilities
- Can be used to restore machines to known good state

Recovery Partition Is Your Friend



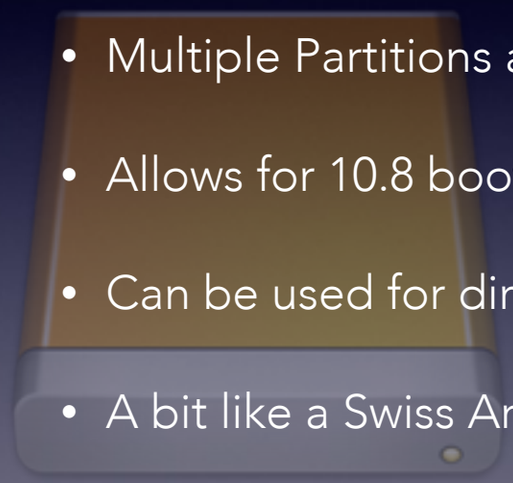
Recovery Partition



- Bootable over WiFi and Ethernet
- Doesn’t require a functional local disk
- Can be used to Repair Disk via Disk Utility
- Can restore a system to a never-booted state

Bootable
USB/TB Disk

Making a Bootstrap Disk



- Multiple Partitions are good
- Allows for 10.8 bootable, 10.9 bootable, DS Disk
- Can be used for direct-attach Tbolt workflows
- A bit like a Swiss Army Knife

Making a Bootstrap Disk

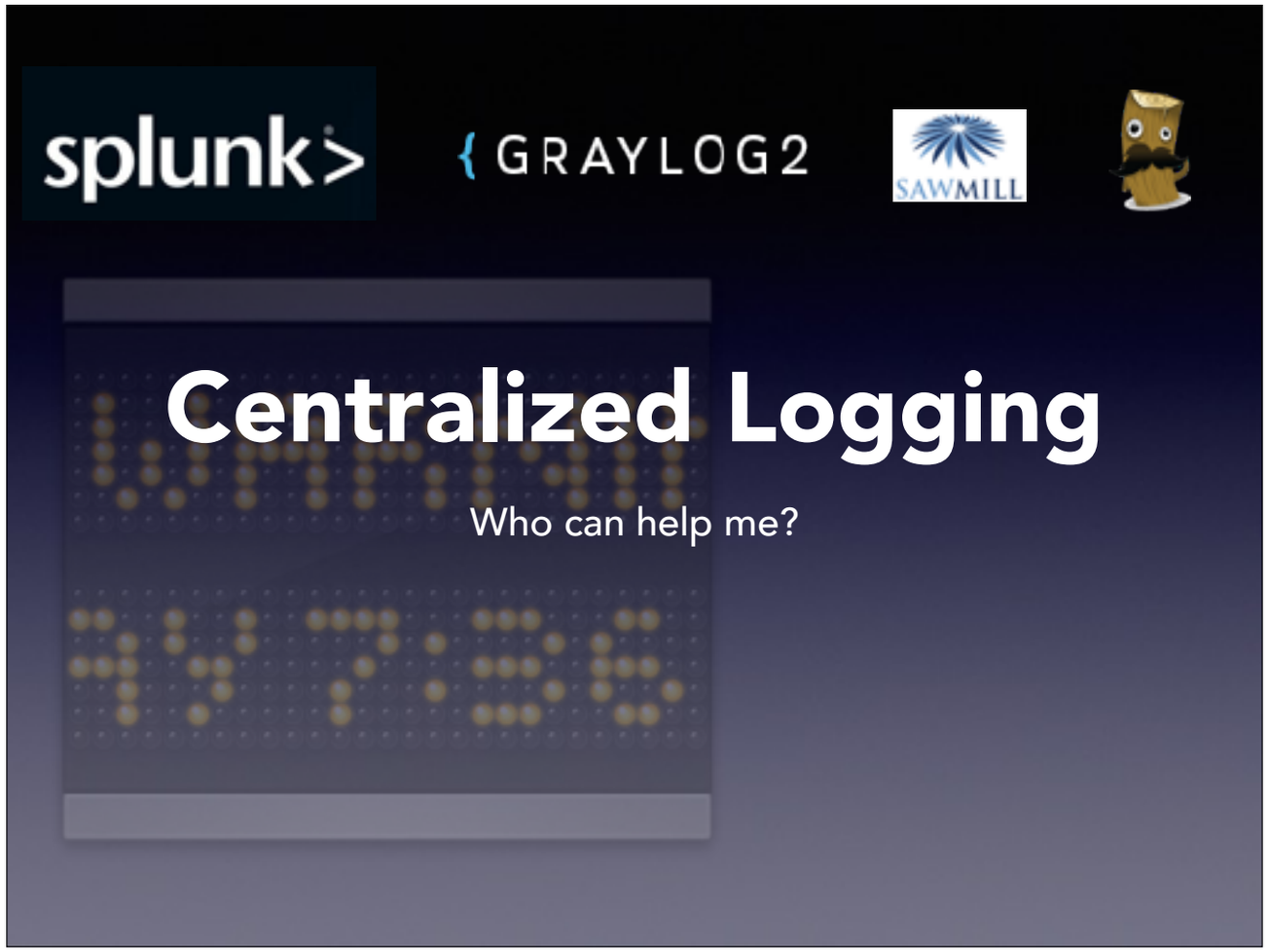
```
sudo /Applications/Install\ OS\ X\
Mavericks.app/Contents/Resources/
createinstallmedia --volume /Volumes/
Untitled --applicationpath /
Applications/Install\ OS\ X\
Mavericks.app --nointeraction
```

About That Network

Centralized Logging

Centralized Logging

- Allows you to maintain a centralized log repository for storing trouble and diagnostic info
- Great for spotting trends
- Great for storing problems
- Functions as a canary in the coal mine


splunk>
{ GRAYLOG2
SAWMILL
Centralized Logging
Who can help me?

But How Do I Know...

- Get in the habit of reading (good) logs now so that you can parse them later when things get hairy.
- Start with the basic system console
- Move up to reading crash logs
- Then on to kernel panics
- Become the log whisperer

Other Tools Exist

What are you using that you just have to share?