

Managing Mac OS X with Radmin - Imaging, Rollback, and No License Fees

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Information Services & Technology



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What's it like?

- synctree
- Tripwire™
- Assimilator
- FileWave
- netOctopus

What does it do?

- Tripwire
 - Intrusion detection
 - Policy control
- Updates
 - Repair damage
 - Add software, packages, patches
- Installs

Who uses it?

- MIT, University of Michigan, Harvard, Carnegie Mellon University, Stanford
- Disney, Jim Henson's Creature Shop, Cisco
- US Army and Air Force

How do they use it?

- Fully managed machines
 - Computer labs, corporate laptops, server, support staff
- Partially managed machines
 - Only a select number of application
- Developer machines, rapid deployment, and testing

The Radmind Assistant

- A Lickable Radmind Interface for Mac OS X
- A Cocoa front end for the Radmind tools
- Designed to make Radmind use more intuitive for the administrator
- Includes basic user automation

The Radmind Assistant

- First-time walkthrough
- Based on Apple's Assistants
- Prompts and instructs at every step
- Teaches how to use Radmind

Demo

Radmind Assistant



Design Goals

- Minimize dependencies on infrastructure
- Minimize network bandwidth
- Reduce Work
- Security
- Standards based

Radmind Demo

(*Once More, with Feeling*)



Transcripts

- Positive

Lists filesystem objects that must exist and match all attributes

- Negative

List filesystem objects that must exist, but only some attributes are checked

Listed directories are not read

Command File

- A list of transcripts and included command files
- Listed in precedence order, lowest to highest

Example Command File

n 10.5-neg.T

p 10.5-base.T

p Fetch.T

k Graphics.K

The Radmind Server

- Serves command file, transcripts and files
- Selects a client's command file
- Platform agnostic

Config File

- Stored on the server
- Lists valid hosts
- Use IP, DNS, certificate or arbitrary strings
- Supports wildcards

Example Config File

```
gigis.mit.edu          server.K
*.lab.mit.edu          lab.K    # Room 200
18.23.3.<100-110>      lab-scanner.K
gigis.mit.edu          testing.K
```

ktcheck

- Compares local policy with that stored on the Radmind server
- Retrieves updated command file from the Radmind server

fsdiff

- Core Radmin tool
- Compares file system to a policy
- Outputs the differences
- Never talks on the network

lapply

- Changes local filesystem as described by a transcript
- Retrieves updated files as required from the Radmind server

Creating Transcripts

1. Update machine to make sure it's current
2. Make changes
3. Capture changes
4. Store changes to the Radmind server

Icreate

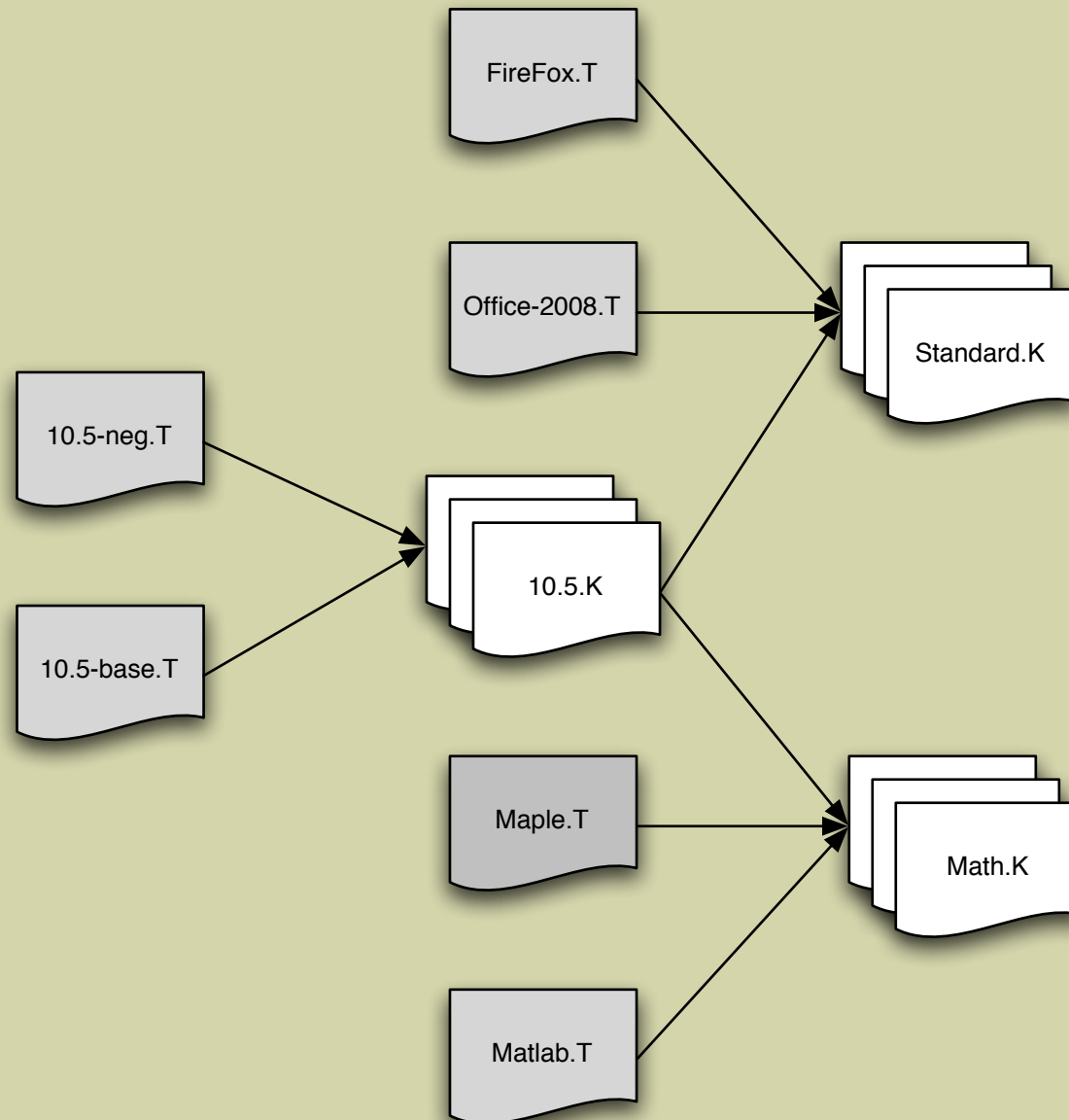
- Uploads a transcript and associated files to the Radmind server

Demo

(*Going Through the Motions*)

Loadset Planning

- Separate OS from applications
- Group by function
 - Graphics, development, etc.
- Share as much as possible



Radmind 202

- Included command files (KinK)
- Anonymous authentication
- Reporting
- Exclude Files

Example Exclude File

x ./Library/Preferences/DirectoryService/.DSIsRunning

x */Danish.lproj

x */Dutch.lproj

x */da.lproj

Special Files

- Lists files that are unique to a machine
 - License keys
 - Certificates
- Special files always have highest precedence

Leopard

- Port number changes
- .DS_Store Files
- pkgutil - the installer package receipt database
- Prebinding

Where Do We go From Here?

- Windows Port
- Further network optimizations
- Package translation
- Radmind 2.0?

More Information

- <http://radmind.org>
- radmind-users@lists.sourceforge.net
- mcneal@mit.edu

Q & A