X World 2014

DON’T USE THE M WORD

Tania Dastres and Marcus Ransom
RMIT University

Thanks to

CODE42

JAMF software

AUC

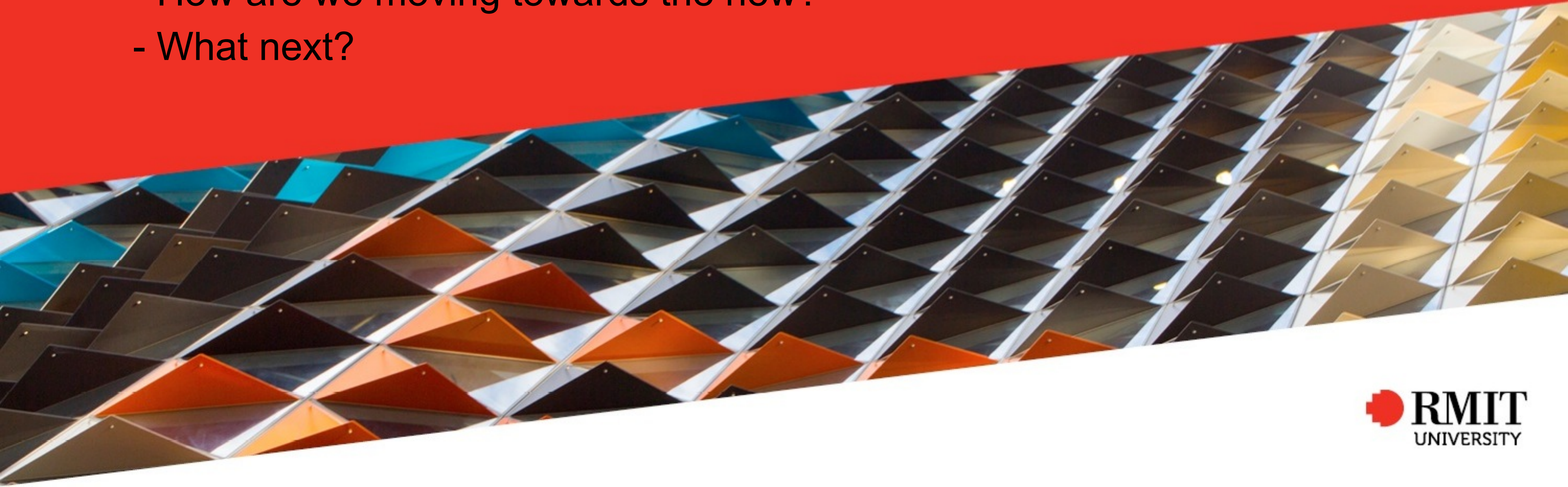
Hashtag : **#xw14**
Please leave comments on this talk at **auc.edu.au/xworld/sessions**

Don’t use the M word

Tania Dastres
MacWorks Technical Lead
and
Marcus Ransom
Lead Apple Technician

Don’t use the M word

- RMIT University
- Old IT vs new IT. It’s ALL about the user
- How are we moving towards the new?
- What next?



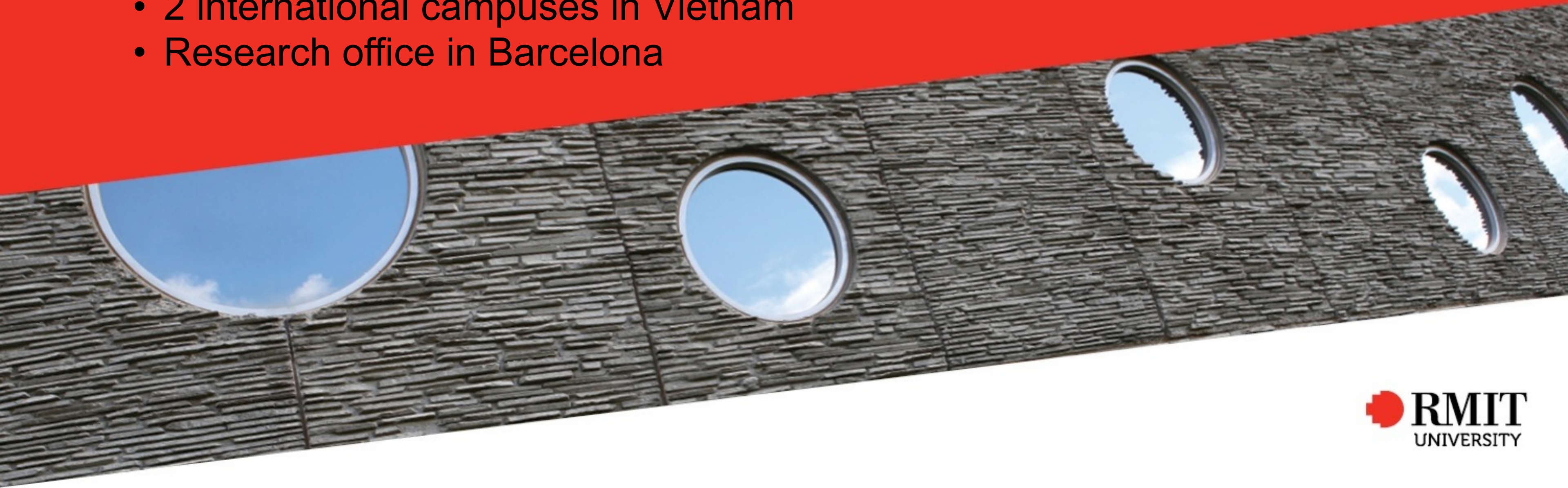
RMIT UNIVERSITY

RMIT University

- Founded in 1887
- Australia’s largest tertiary institution
- 82,000 students

RMIT University

- Campuses in Melbourne CBD, Bundoora and Brunswick
- 2 international campuses in Vietnam
- Research office in Barcelona



RMIT University

- Over 15,000 computers
- At least 2500 Mac OS X*

Using a Mac at RMIT

where we have come from

- Individual college based IT departments
- Mixed teams providing support across platforms
- Labs owned and maintained by colleges/schools
- Some knowledge sharing between colleges

Labs

- Nearly 1300 machines in over 60 Labs
- Monolithic images
- Individual customisation for different spaces
- Network logins
- Administration via ARD
- Moved to Munki and Deploy Studio in 2011

Staff Machines

- Over 1200 machines (exact numbers uncertain)
- Monolithic or no images
- No centralised management
- Local user accounts
- Mix of purchased and leased
- Poor asset tracking

2012

- Centralised ITS
- Client Computing

2013

- Advanced Technologies - Apple Team

Apple Team

- Third level support for Mac OS X and iOS
- Supporting Service Desk and Field Services with level 1 & 2 tasks
- Deployments outsourced
- Project support with experienced Apple technical knowledge
- Casper Suite used to manage 1200 lab machines in 2014

Why change?

What worked and what didn’t

- No management = minimal restrictions
- Excellent specialised and localised support
- Poor skill levels in some areas
- No way of automating updates to staff
- We had NO idea how many machines we had

Managed Operating Environment

that’s an M word right at the start isn’t it?

Don’t use the M word

Old IT

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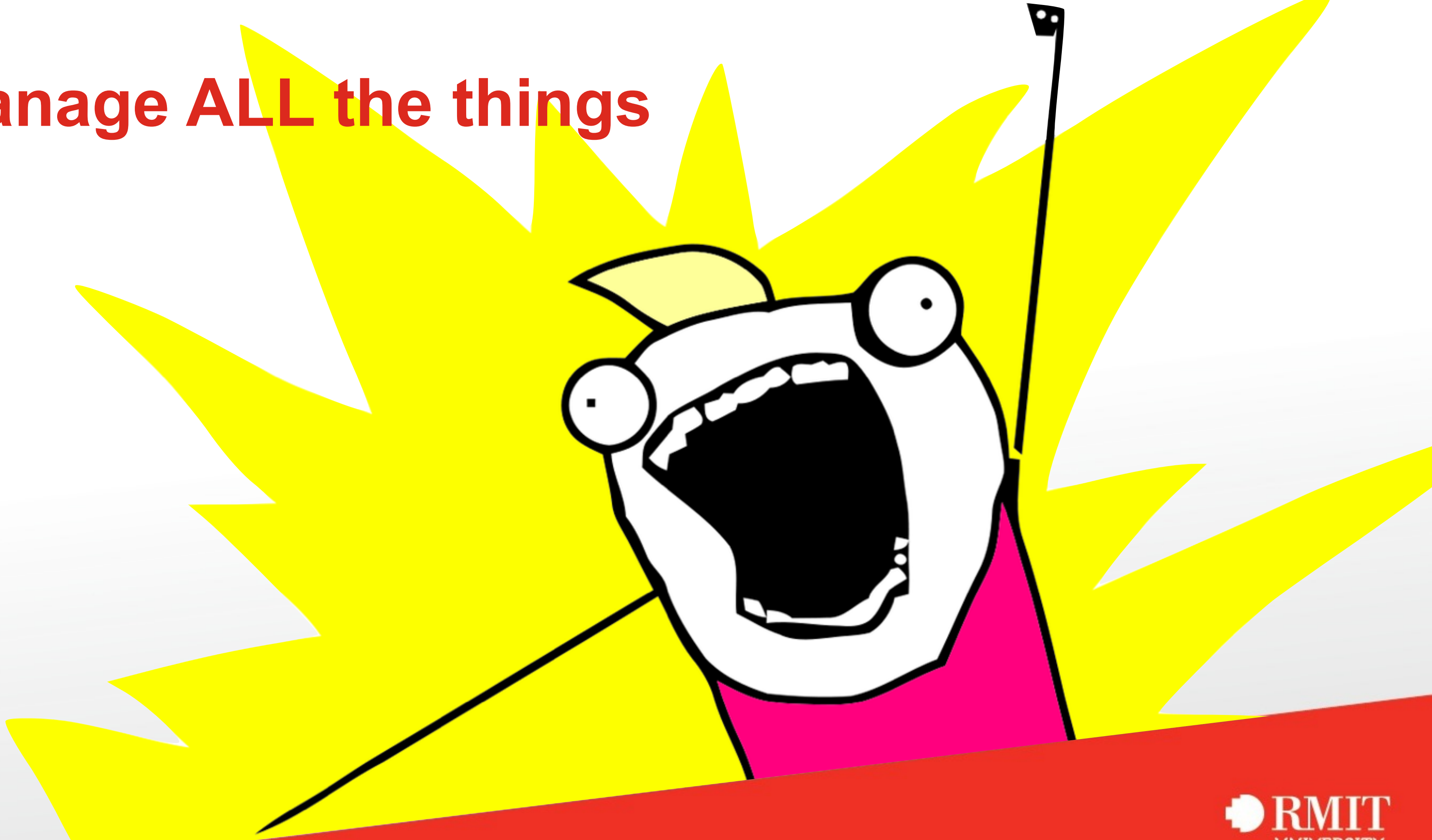
Old style Macintosh management

- Monolithic image - make any changes - do it all again
- Manage configuration and preferences, software updates
- Golden Triangle/Directory Services/MCX/network home directories
- Restricted access to admin privileges
- Goal of consistency

manage ALL the things



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The perfect storm

The storm builds

- yearly OS Updates
- installESD
- iCloud integration
- deprecation of MCX
- configuration profiles
- move from MIT to Hemdahl Kerberos
- rewrite of dscl
- document autosave and versions
- iLife app adoption
- client OS Virtualisation
- internet recovery
- recovery HD

Can you see a pattern?

- Free Upgrade
- Mac App Store for standard users
- VPP and DEP
- iWork app adoption
- plist caching

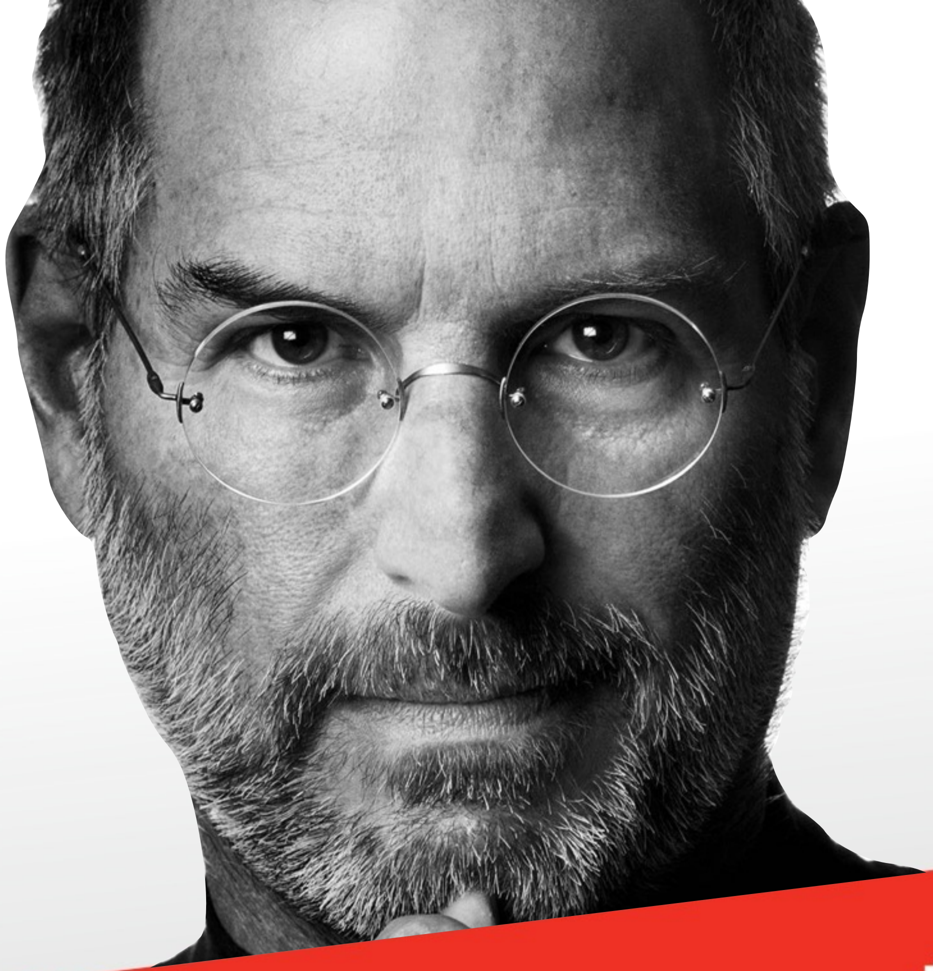
What is going to change next??

- Apple ID for local password
- iCloud Drive
- OS X Beta Program
- watch this space

The New IT

It’s all about the User

“You’ve got to start with the customer experience and work back toward the technology - not the other way around”



We are all users

- How would we like our machines set up and administered?
- What would annoy us if someone imposed it on our machines?
- Users are just trying to do their job

Getting buy in from users

- Promote the augmented services
- Don’t focus on the restrictions
- Give them something they have been asking for
- Lead by example

New style IT management

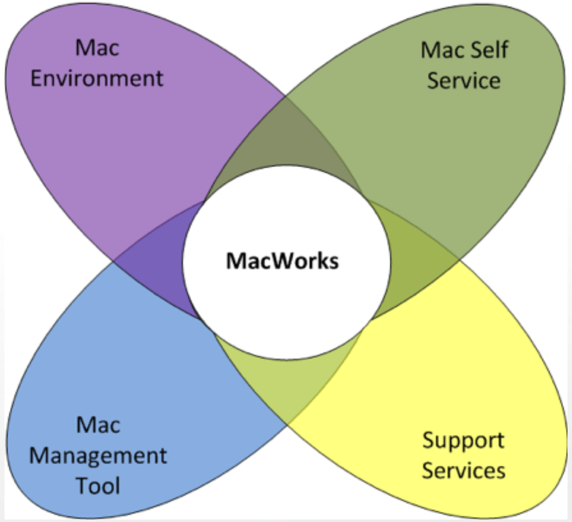
- Design based on needs, not consistency with other platforms or historical policies
- Embracing differences rather than enforcing consistency
- Educate other departments on the requirements of the Mac OS X platform
- Manage once, not always
- Thin provisioning, modular deployment & rapid adoption
- Self service

MacWorks

What is MacWorks?

- Core Configuration
- Core Software/Applications
- Seamless Printing
- Wireless Device Authentication
- Hardware Lifecycle Improvements
- Software License Metering

- Mac Imaging
- Patch Management
- Asset Reporting



- Install & Update Software
- OS Updates
- User Initiated Maintenance & Troubleshoot

- Remote Assistance
- Knowledge Base
- Upskill of ITS Support Teams

Basic standard configuration

Staff machines are provided with only basic software installed.
Users can add anything else they require through self service

- Microsoft Office
- iLife + iWork
- Google Chrome
- Citrix Receiver
- Casper Self Service
- Fetch
- VLC
- Adobe Flash Player
- Java Web Plugin
- KeyAccess
- Ricoh Drivers
- McAfee

What configuration DO we perform?

Configurations that enhance rather than restrict

Global print queue
Preventing .ds_store
Local admin for tech support
Enabling click through at login
Basic network and local settings

Skip welcome screen in Safari
VNC to currently logged in user
Set Safari home page to RMIT
Disable iCloud setup prompt
Device wireless authentication

Transparency about restrictions

- Password protected screensaver timeout - 10 minute with 5 second grace
- Auto login disabled
- Enforced password policy - expiry, complexity and not recycled.

Active Directory

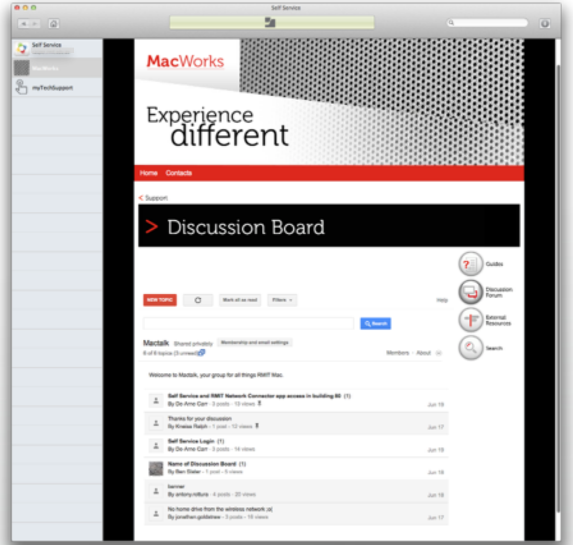
AD login on laptops posed several challenges

- External password resets
- Users seldom log off
- No password reminder at login window since 10.9 (or if FileVault is enabled)
- Introduction of Apple ID password reset
- Departmental shared drives

If we aren’t managing, what ARE we doing?

- Providing services
- Configurations that enhance rather than restrict
- Building a knowledge base
- Providing automated tech support
- Simplified network connectivity
- Self service delivery of software, updates and configuration
- Championing for services to become compatible
- Hidden control with visible customisation

Build communities



Self Service

Self Service

MacWorks

myTechSupport

MacWorks

Experience different

Home Contacts

< Support

> Discussion Board

NEW TOPIC Mark all as read Filters Help

Search

Mactalk Shared privately Membership and email settings

6 of 6 topics (3 unread) Members · About

Welcome to Mactalk, your group for all things RMIT Mac.

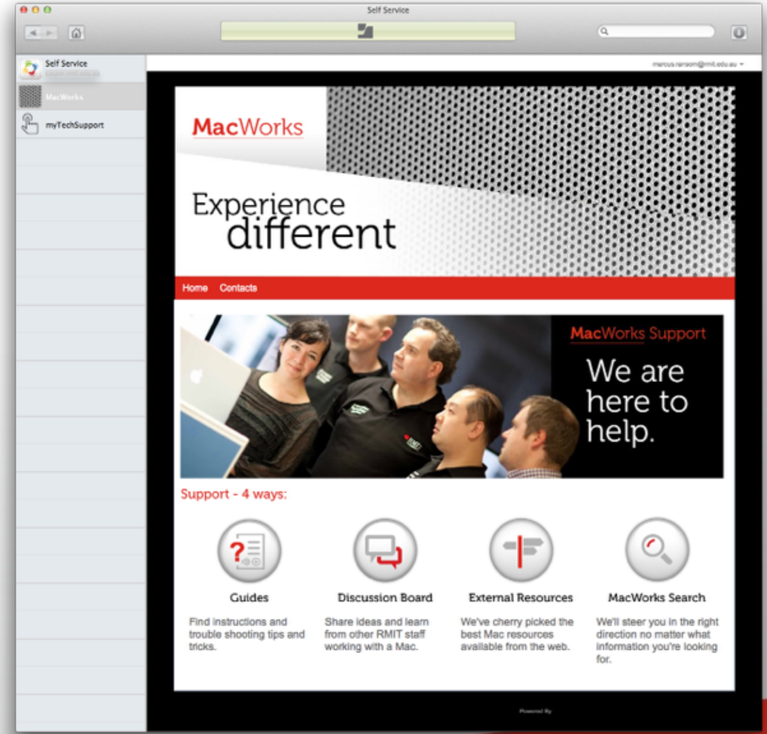
Self Service and RMIT Network Connector app access in building 80 (1) By De-Arne Carr · 3 posts · 13 views	Jun 19
Thanks for your discussion By Kneisa Ralph · 1 post · 12 views	Jun 17
Self Service Login (1) By De-Arne Carr · 3 posts · 14 views	Jun 19
Name of Discussion Board (1) By Ben Sleter · 1 post · 5 views	Jun 18
banner By antony.rollura · 4 posts · 20 views	Jun 18
No home drive from the wireless network :o(By jonathan.goldstraw · 3 posts · 16 views	Jun 17

Guides

Discussion Forum

External Resources

Search



Self Service

Self Service

MacWorks

myTechSupport

MacWorks

Experience different

Home Contacts

MacWorks Support

We are here to help.

Support - 4 ways:

Guides
Find instructions and trouble shooting tips and tricks.

Discussion Board
Share ideas and learn from other RMIT staff working with a Mac.

External Resources
We've cherry picked the best Mac resources available from the web.

MacWorks Search
We'll steer you in the right direction no matter what information you're looking for.

Powered By

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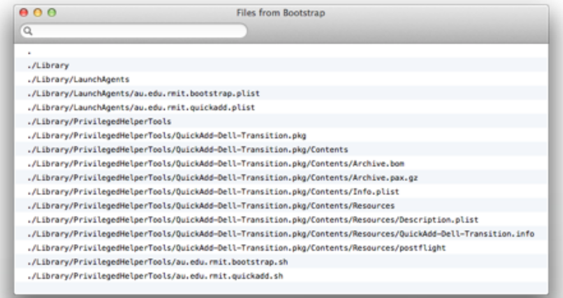
Deployment workflows - Staff

- Why image a machine if it comes with a perfectly good OS already?
- No more updating net boot images to suit new hardware / forked builds of OS

Workflow

- Deployment tech boots to recovery HD and runs a script.
- Tech runs some setup policies in self service
- User installs remaining software

Deployment workflows - Staff


Files from Bootstrap

```
.
./Library
./Library/LaunchAgents
./Library/LaunchAgents/au.edu.rmit.bootstrap.plist
./Library/LaunchAgents/au.edu.rmit.quickadd.plist
./Library/PrivilegedHelperTools
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Archive.bom
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Archive.pax.gz
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Info.plist
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Resources
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Resources/Description.plist
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Resources/QuickAdd-Dell-Transition.info
./Library/PrivilegedHelperTools/QuickAdd-Dell-Transition.pkg/Contents/Resources/postflight
./Library/PrivilegedHelperTools/au.edu.rmit.bootstrap.sh
./Library/PrivilegedHelperTools/au.edu.rmit.quickadd.sh
```

Boot to recovery partition and run the following command in terminal

```
/Volumes/Casper/bootstrap.sh
```

Contents of Bootstrap.sh script run from USB

```
#!/bin/sh
# Install Bootstrap package to Macintosh HD
/usr/sbin/installer -package "${0%/*}/Bootstrap.pkg" -target "/Volumes/Macintosh HD"
/usr/bin/touch "/Volumes/Macintosh HD/private/var/db/.AppleSetupDone"
# Restart
/sbin/reboot
```

Deployment workflows - Staff

Quickadd.plist

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
	<key>Label</key>
	<string>au.edu.rmit.quickadd</string>
	<key>LimitLoadToSessionType</key>
	<string>LoginWindow</string>
	<key>Program</key>
	<string>/Library/PrivilegedHelperTools/au.edu.rmit.quickadd.sh</string>
	<key>RunAtLoad</key>
	<true/>
</dict>
</plist>
```

Deployment workflows - Staff

Quickadd script run from launchd

```
#!/bin/sh
# Get serial number
SERIAL_NUMBER=$(/usr/sbin/system_profiler SPHardwareDataType | /usr/bin/awk
'/Serial Number \(system\)/ { print $4 }')
# Set computer name
/usr/sbin/scutil --set ComputerName "$SERIAL_NUMBER"
# Install QuickAdd-Transition package
/usr/sbin/installer -package "/Library/PrivilegedHelperTools/QuickAdd-Transition.pkg" -target /
until [ $? -eq 0 ]; do
  /bin/sleep 30
  /usr/sbin/installer -package "/Library/PrivilegedHelperTools/QuickAdd-Transition.pkg" -target /
done
/bin/launchctl load -F -S LoginWindow "/Library/LaunchAgents/au.edu.rmit.bootstrap.plist"
# Cleanup
/bin/rm -r "/Library/PrivilegedHelperTools/QuickAdd-Transition.pkg"
/bin/rm "/Library/LaunchAgents/au.edu.rmit.quickadd.plist"
/bin/rm "$0"
```

Deployment workflows - Staff

Bootstrap.plist

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
	<key>Label</key>
	<string>au.edu.rmit.bootstrap</string>
	<key>Disabled</key>
	<true/>
	<key>LimitLoadToSessionType</key>
	<string>LoginWindow</string>
	<key>Program</key>
	<string>/Library/PrivilegedHelperTools/au.edu.rmit.bootstrap.sh</string>
	<key>RunAtLoad</key>
	<true/>
</dict>
</plist>
```

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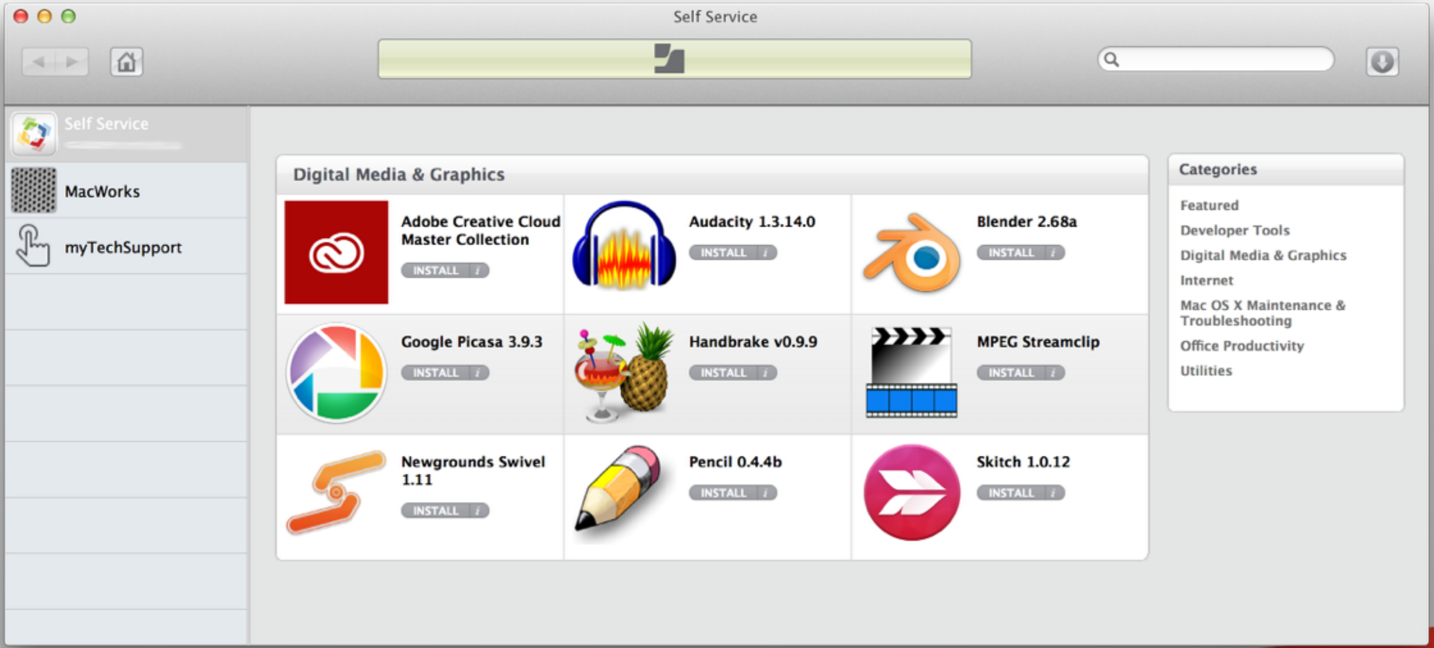
Deployment workflows - Staff

Bootstrap policy trigger run from launchd:

```
#!/bin/sh
until [ -f /private/var/db/dslocal/nodes/Default/users/taa.plist ]; do
  /usr/sbin/jamf policy -trigger Bootstrap
  [ ! -f /private/var/db/dslocal/nodes/Default/users/taa.plist ] && /bin/sleep 30
done
# Cleanup
/bin/rm "/Library/LaunchAgents/au.edu.rmit.bootstrap.plist"
/bin/rm "$0"
```

Self Service



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How are we trying to do this at RMIT?

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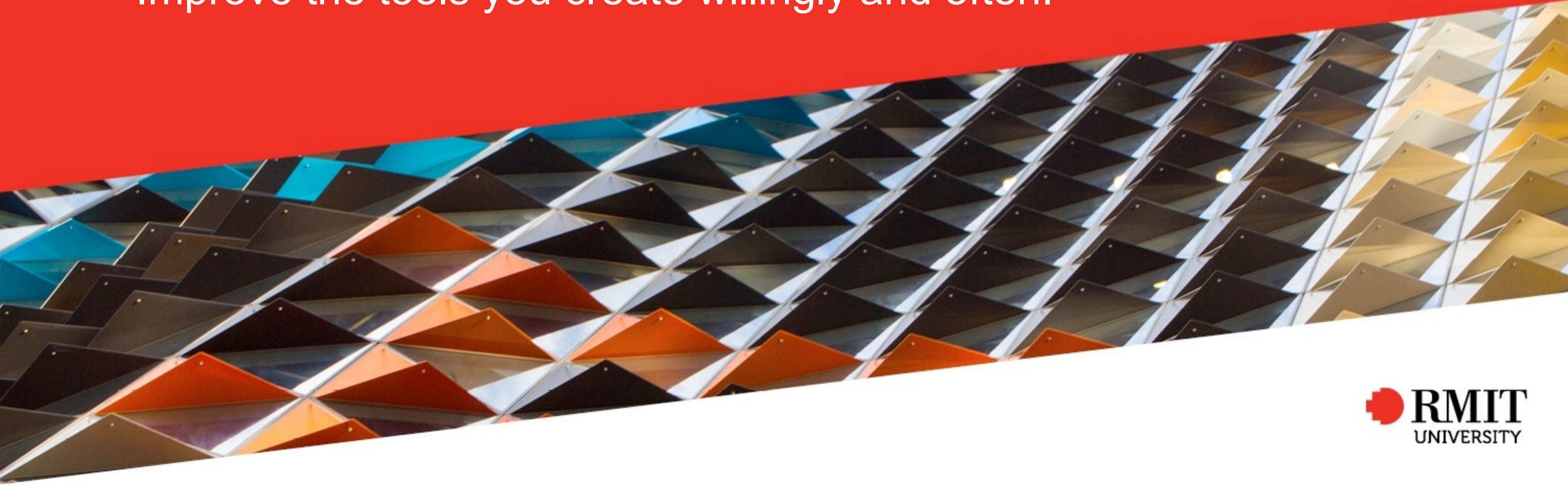
Work smarter with the tools that we have at our disposal.

Build the kind of tools that users are going to want to use.

Improve the tools you create willingly and often.



Scripts are easy to develop and easy to deploy.

But how can we also make them user-friendly?

There are tools available that give your script a GUI as well as facilitate script-user interaction.

Platypus

CocoaDialog

Pashua

You don't need to be an expert developer or coder to use them!

When our users contact IT Service Desk they are usually asked a series of questions about their Mac.

To gather this information for the Mac can be time consuming and frustrating for both the customer and the IT support person.

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How to create a script that displays a summary of this information in one easy to find place.

1. Retrieve information

```
system_profiler SPHardwareDataType
sw_vers -productVersion
networksetup -listallnetworkservices
```

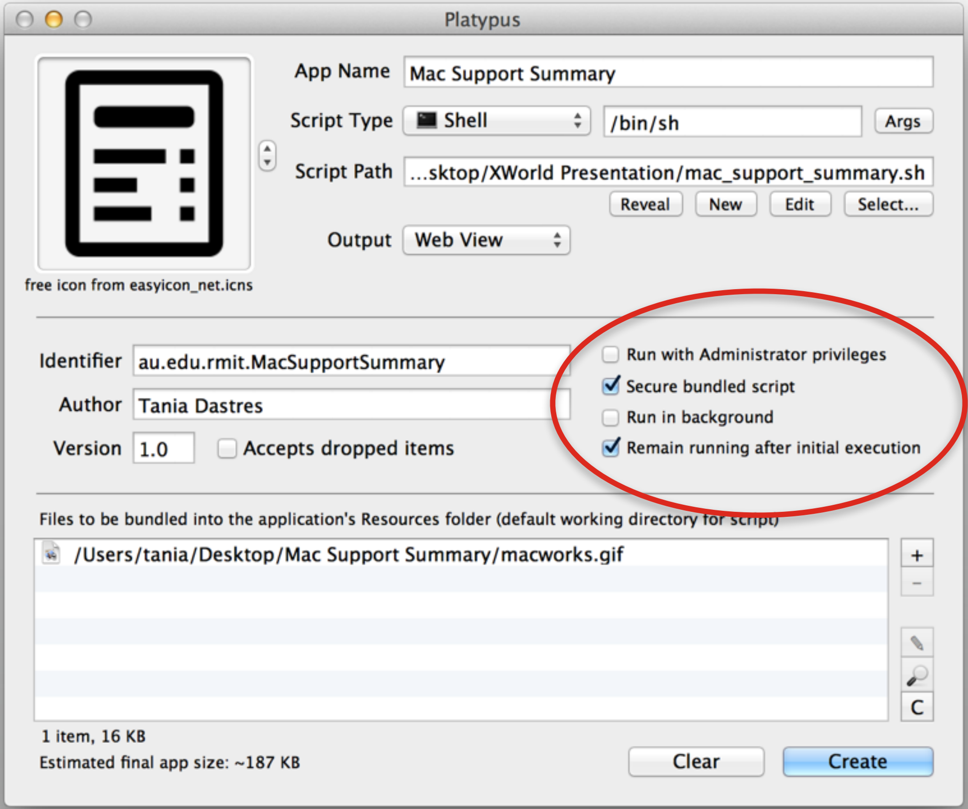
2. Make a clickable app

Platypus

Platypus puts your script in an application bundle and creates the binary to execute it.

There are six output display options:

- None
- Progress Bar
- Text Window
- Status Menu
- Droplet
- Web View


Platypus

App Name: Mac Support Summary

Script Type: Shell — /bin/sh — Args

Script Path: ...sktop/XWorld Presentation/mac_support_summary.sh

Reveal | New | Edit | Select...

Output: Web View

free icon from easyicon_net.icns

Identifier: au.edu.rmit.MacSupportSummary

Author: Tania Dastres

Version: 1.0

- [ ] Accepts dropped items
- [ ] Run with Administrator privileges
- [x] Secure bundled script
- [ ] Run in background
- [x] Remain running after initial execution

Files to be bundled into the application's Resources folder (default working directory for script)

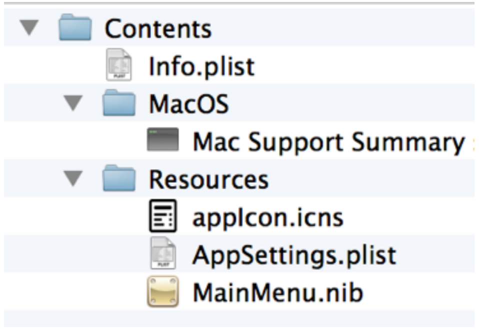
/Users/tania/Desktop/Mac Support Summary/macworks.gif

1 item, 16 KB

Estimated final app size: ~187 KB

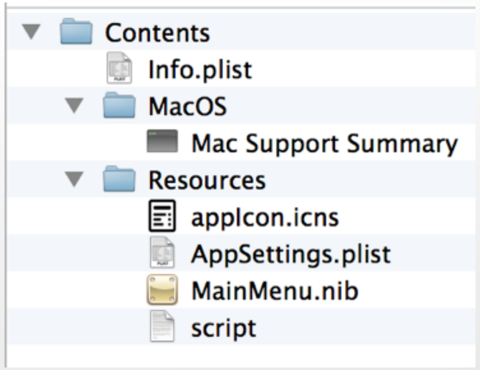
Clear | Create

Secure Bundled Script:



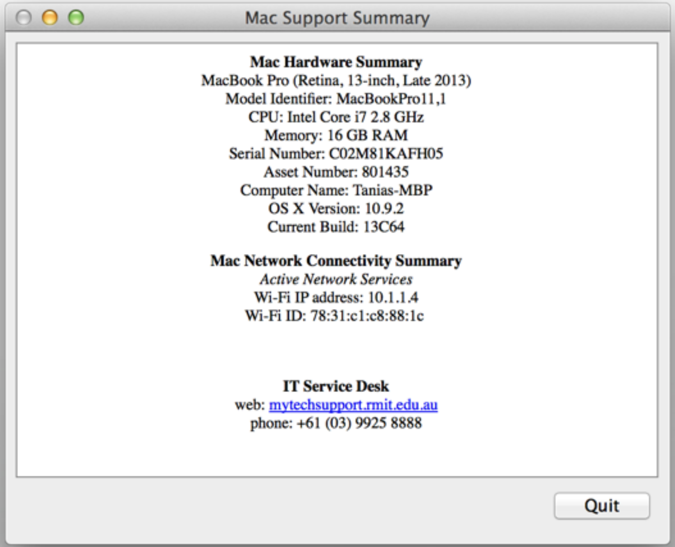
Contents
Info.plist
MacOS
Mac Support Summary
Resources
applcon.icns
AppSettings.plist
MainMenu.nib

Without a Secure Bundled Script:



Contents
Info.plist
MacOS
Mac Support Summary
Resources
applcon.icns
AppSettings.plist
MainMenu.nib
script

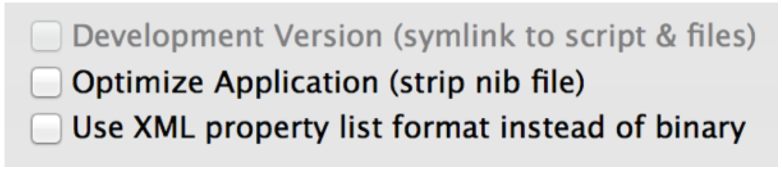
The result:

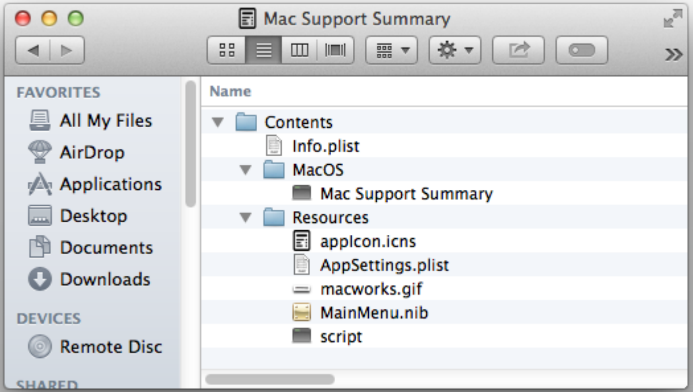


Mac Hardware Summary
MacBook Pro (Retina, 13-inch, Late 2013)
Model Identifier: MacBookPro11,1
CPU: Intel Core i7 2.8 GHz
Memory: 16 GB RAM
Serial Number: C02M81KAFH05
Asset Number: 801435
Computer Name: Tanias-MBP
OS X Version: 10.9.2
Current Build: 13C64

Mac Network Connectivity Summary
Active Network Services
Wi-Fi IP address: 10.1.1.4
Wi-Fi ID: 78:31:c1:c8:88:1c

IT Service Desk
web: mytechsupport.rmit.edu.au
phone: +61 (03) 9925 8888


- ☐ Development Version (symlink to script & files)
- ☐ Optimize Application (strip nib file)
- ☐ Use XML property list format instead of binary

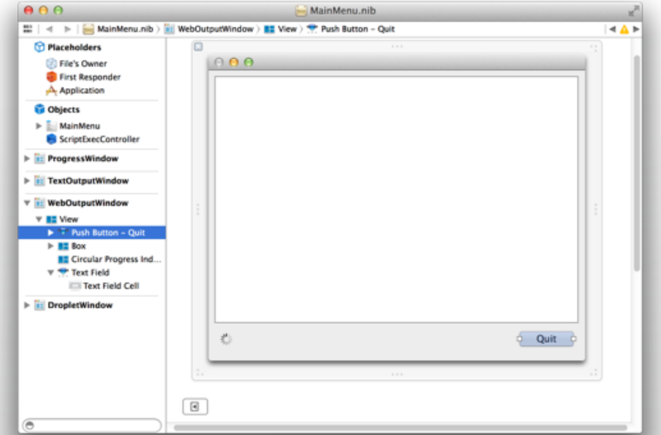

Mac Support Summary

FAVORITES
- All My Files
- AirDrop
- Applications
- Desktop
- Documents
- Downloads

DEVICES
- Remote Disc

SHARED

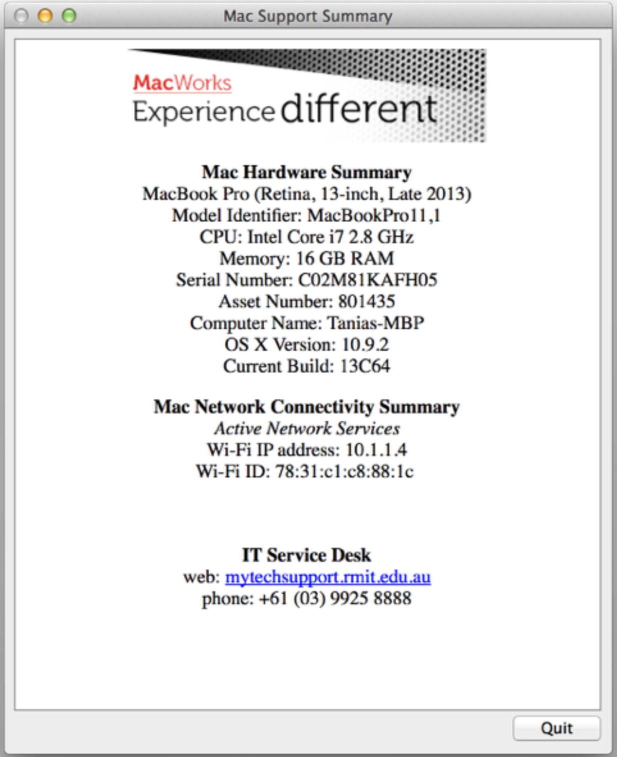
Name
```
▼ Contents
    Info.plist
  ▼ MacOS
      Mac Support Summary
  ▼ Resources
      appIcon.icns
      AppSettings.plist
      macworks.gif
      MainMenu.nib
      script
```


MainMenu.nib

MainMenu.nib 〉 WebOutputWindow 〉 View 〉 Push Button – Quit

```
Placeholders
  File's Owner
  First Responder
  Application
Objects
  ▶ MainMenu
    ScriptExecController
▶ ProgressWindow
▶ TextOutputWindow
▼ WebOutputWindow
  ▼ View
    ▶ Push Button – Quit
    ▶ Box
      Circular Progress Ind...
    ▼ Text Field
        Text Field Cell
▶ DropletWindow
```

Mac Support Summary



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IT Service Desk
web: mytechsupport.rmit.edu.au
phone: +61 (03) 9925 8888

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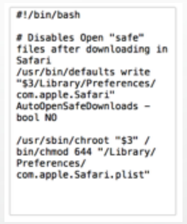
Platypus can let you do some other cool things

Output Type: Status Menu

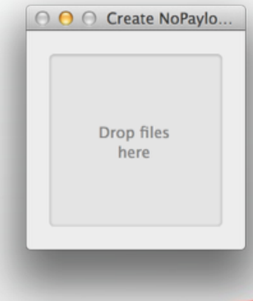
Eg. A script that displays your Mac IP address.

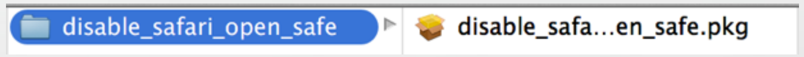
Output Type: Droplet

Eg. A script that creates a payloadless package.



```
#!/bin/bash

# Disables Open "safe"
files after downloading in
Safari
/usr/bin/defaults write
"$3/Library/Preferences/
com.apple.Safari"
AutoOpenSafeDownloads -
bool NO

/usr/sbin/chroot "$3" /
bin/chmod 644 "/Library/
Preferences/
com.apple.Safari.plist"
```





Problem

How to provide the benefits of AD without the user needing to log in to an AD-bound account?

Option #1: Pashua

Multiple GUI elements displayed in the one window

Separate display configuration file

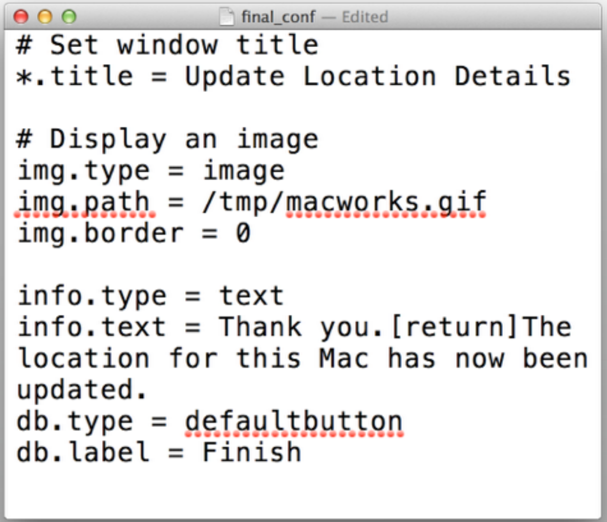
Limited text formatting options (use “[return]” for a line break)

Pashua dock item appears by default

Some of Pashua’s 15 available GUI elements:

- Buttons
- Checkboxes
- Images
- Popup list…

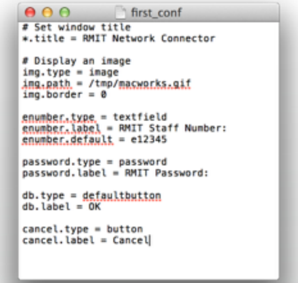
For the full list - http://www.bluem.net/en/mac/pashua/



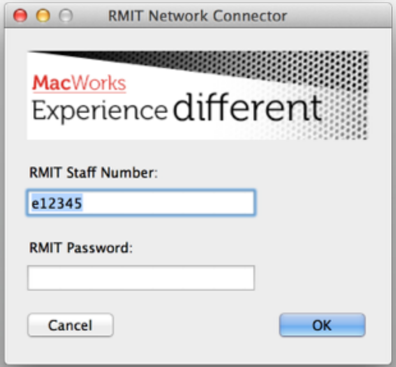
```
# Set window title
*.title = Update Location Details

# Display an image
img.type = image
img.path = /tmp/macworks.gif
img.border = 0

info.type = text
info.text = Thank you.[return]The
location for this Mac has now been
updated.
db.type = defaultbutton
db.label = Finish
```

Pashua - the basics

```
#!/bin/bash
BUNDLEPATH="Pashua.app/Contents/MacOS/Pashua"
PASHUAPATH="/usr/local/$BUNDLEPATH"
FIRST_CONF="first_conf"
```


first_conf

```
# Set window title
*.title = RMIT Network Connector

# Display an image
img.type = image
img.path = /tmp/macworks.gif
img.border = 0

enumber.type = textfield
enumber.label = RMIT Staff Number:
enumber.default = e12345

password.type = password
password.label = RMIT Password:

db.type = defaultbutton
db.label = OK

cancel.type = button
cancel.label = Cancel
```


RMIT Network Connector

RMIT Staff Number: e12345

RMIT Password:

```
pashua_run() {

# In this case, $1 is first_conf
pashua_configfile="$1"

# Pashua does its magic, and returns the
resulting user input as one long string.

result=`"$PASHUAPATH" $pashua_configfile
| sed 's/ /;;;/g'`

# pashua_run then parses this result
into variables with the same names as
the element name in the conf file
}
# User clicked the default OK button
if [[ $db -eq 1 ]]
then

# AD username
check_eNumber "$enumber"
fi
```

Option #2: CocoaDialog

Lets your script display one dialog type after the other.

Fourteen dialog types to choose from

Icons can added to some dialog types only.

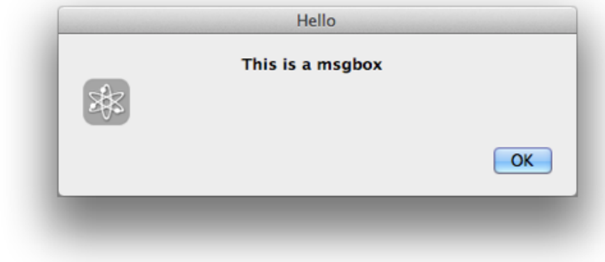
And they must be in .icns format.

And they can't be resized or moved around.

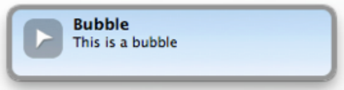
Text cannot include a line break.

Dialog type includes a progress bar

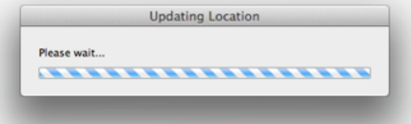
and bubbles.


Hello

This is a msgbox


Bubble

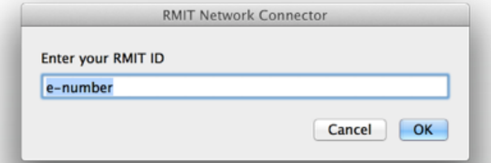
This is a bubble


Updating Location

Please wait...

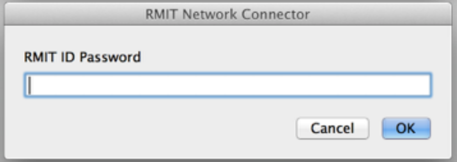
CocoaDialog - the basics

```
CD_APP="/usr/local/CocoaDialog.app"
CD="$CD_APP/Contents/MacOS/CocoaDialog"

e_number_input=`$CD inputbox --title "RMIT Network Connector" \\
    --informative-text "Enter your RMIT ID" \\
    --text "e-number" \\
    --button1 Select \\
    --button2 Cancel`;
# User input gets submitted as a string so you need to extract out the values you want
declare -a input=($e_number_input);
button=${input[0]};
eNumber=${input[1]};

# User clicked button 1, the OK button
if [ $button -eq 1 ]
then
# So now ask them for their password
password_input=`$CD secure-inputbox \\
        --title "RMIT Network Connector" \\
        --informative-text "RMIT ID Password" \\
        --button1 OK \\
        --button2 Cancel`;
fi
```


RMIT Network Connector

Enter your RMIT ID

e-number


RMIT Network Connector

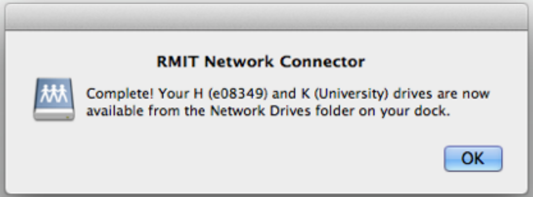
RMIT ID Password

RMIT Network Connector. So what does it do?

```
# 1. Confirm that the Mac is on an RMIT network.
checkDatasource=`dscl /Active\ Directory/<Domain> -read Users/$1 | grep "Data source (/Active
Directory/<Domain>) is not valid"`


# 2. Get the mount folders ready
if [[ ! -d ~/mount ]]
then
    mkdir ~/mount
    mkdir ~/mount/H
    mkdir ~/mount/K
fi
```

```
# 3. Make sure that the dock item Network Drives is there. If it's not, create it!
dock_item_exists=$(echo "$persistent_dock_items" | grep "file-label = Network Drives")
if [[ -z "$dock_item_exists" ]]
then
defaults write com.apple.dock persistent-others -array-add "<dict><key>tile-data</key><dict><key>file-
data</key><dict><key>_CFURLString</key><string>/Users/$USER/mount</string><key>_CFURLStringType</
key><integer>0</integer></dict><key>file-label</key><string>Network Drives</string><key>file-type</
key><integer>18</integer></dict><key>tile-type</key><string>directory-tile</string></dict>"
killall Dock
fi

# 4. Use CocoaDialog to ask the user for their AD username and password.

# 5. Confirm that their username is a valid AD user.
error_check=$(dscl /Active\ Directory/<Domain> -read Users/$eNumber 2>&1 > /dev/null)


# 6. Generate the Kerberos ticket
kinit_result="$(echo "$password" | kinit --password-file="STDIN" "$eNumber"@<Domain> 2>&1 > /dev/null)


# 7. Do an LDAP query to get the user's H drive address
home_dir=$(ldapsearch -LLL -x -H ldap://<Domain> -D "RMIT\\$eNumber" -b
"ou=Accounts,dc=rmit,dc=internal" -w $password cn="$eNumber" | grep "homeDirectory" | sed 's/
homeDirectory: /''/g')
```

```
# 8. Unmount the drives in case they're already mounted
diskutil umount ~/mount/H 2>&1
diskutil umount ~/mount/K 2>&1

# 9. And mount the user's H and K drive
mount_smbfs "$home_dir" ~/mount/H
mount_smbfs //<K drive address> ~/mount/K

# 10. Finally, call the function that displays a completion message
completionMessage "Complete! Your H ($eNumber) and K (University) drives are now available from the
Network Drives folder on your dock."

   # Generate a completion message for the user - in this case, using CocoaDialog
   function completionMessage()
   {
   message=`$CD msgbox --icon network --text "RMIT Network Connector" \
   --informative-text "$1" \
   --no-newline \
   --button1 "OK"`
   }
```



RMIT Network Connector

Complete! Your H (e08349) and K (University) drives are now available from the Network Drives folder on your dock.

Problem

How to we record RMIT specific information in the JSS?

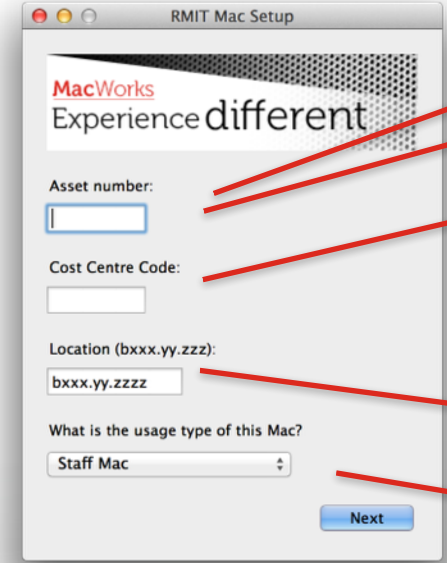
Mac ID Setup, in four easy steps.

1. Retrieve information

2. JSS API to write this information to the JSS Computer object.

```
curl -X PUT -H "Accept: application/xml" -H "Content-type: application/xml" -k -u
"$API_USER":"$API_PW" -d "<computer><purchasing><purchasing_account>
$cc_confirmed</purchasing_account></purchasing></computer>" "${jssServer}/
JSSResource/computers/udid/$udid"
```

RMIT UNIVERSITY



RMIT Mac Setup

Asset number:

Cost Centre Code:

Location (bxxx.yy.zzz):

bxxx.yy.zzzz

What is the usage type of this Mac?

Staff Mac

Hidden file

General:Asset Tag

User and Location: Department

Cost Centre Code has corresponding Department name in csv file script searches through.
that gets searched for in cc.csv file to look for a corresponding Department string, which gets written to
User and Location: Department.

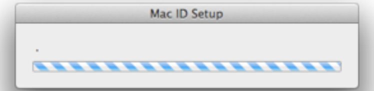
User and Location: Room

User and Location: Username

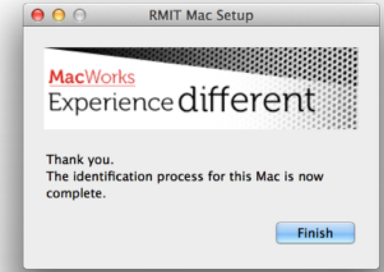
If the usage type is Staff Mac the e number is requested

RMIT UNIVERSITY

4. Progress bar

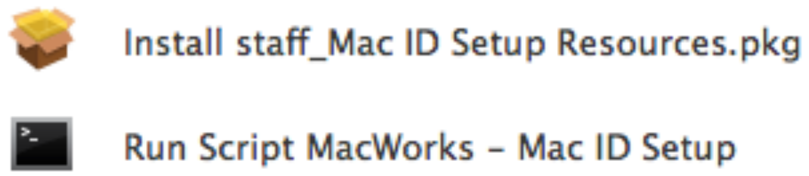


5. Completion message.



Thank you.
The identification process for this Mac is now complete.

Mac ID Setup


Install staff_Mac ID Setup Resources.pkg

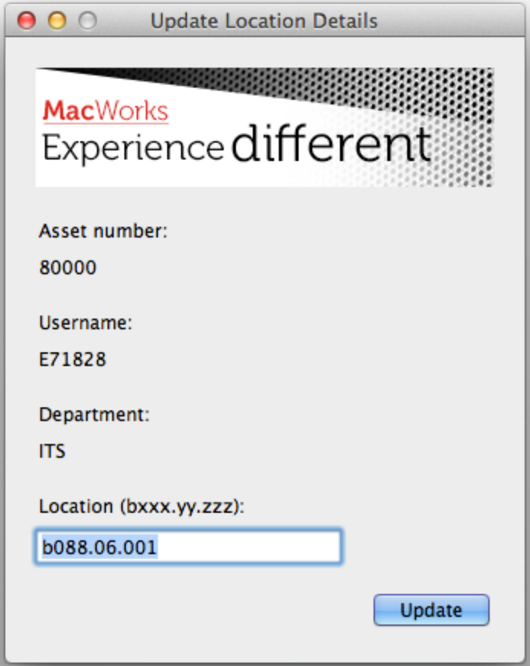
Run Script MacWorks – Mac ID Setup

```
# Display the MacWorks logo
img.type = image
img.path = /tmp/macworks.gif
img.border = 0
```

Problem

How do we keep RMIT specific information up to date in the JSS?

Solution: Update Location Details, in five easy steps



Asset number:

80000

Username:

E71828

Department:

ITS

Location (bxxx.yy.zzz):

b088.06.001

```
1. JSS API
locationXML=$(curl -s -u "$API_USER":"$API_PW" “${jssServer}/JSSResource/computers/udid/$udid/subset/
Location”)
username=$( echo "$locationXML" | xpath /computer/location/username | sed -e 's/<username>//;s/<\/
username>//'  )
location=$( echo "$locationXML" | xpath /computer/location/room | sed -e 's/<room>//;s/<\/room>//'  )
```

2. Create a temporary Pashua configuration file

```
settings_page=$(mktemp /tmp/settings_conf_XXXXXX)
chmod 755 "$settings_page"
```

...to display the retrieved values as text

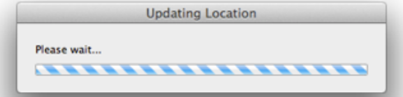
```
echo "username.type = text"  >> "$settings_page"
echo "username.label = Username: "  >> "$settings_page"
echo "username.text = $username" >> "$settings_page"
```

But display the location information (room) as a textfield element

```
echo "location.type = textfield"  >> "$settings_page"
echo "location.label = Location (bxxx.yy.zzz):"  >> "$settings_page"
echo "location.default = $location" >> "$settings_page"
```

4. Progress bar

```
$CD progressbar --indeterminate --title "Updating Location" --text "Please wait..."  < /tmp/hpipe &
```

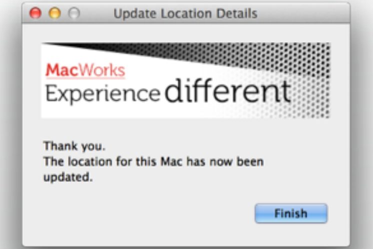

Updating Location

Please wait...

5. Write the new location/room information back to the JSS

```
curl -X PUT -H "Accept: application/xml" -H "Content-type: application/xml" -k -u
"$API_USER":"$API_PW" -d "<computer><location><room>$location</room></location></computer>" "${jssServe
JSSResource/computers/udid/$udid"
```

6. Completion message.


Update Location Details

Thank you.
The location for this Mac has now been updated.

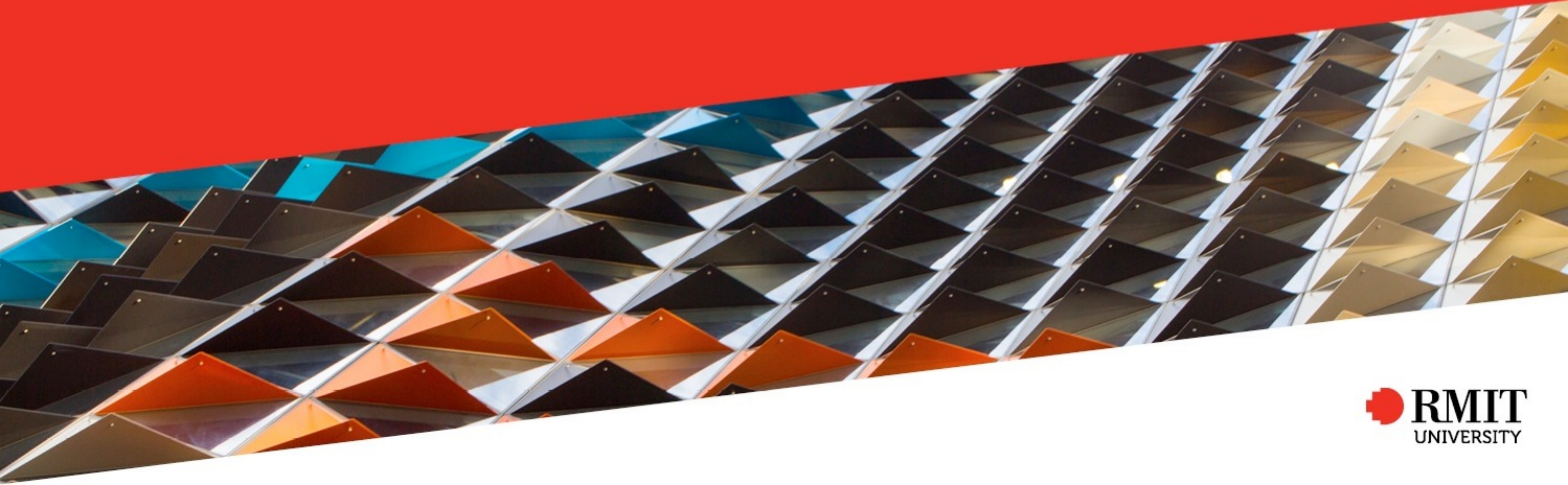
Links to checkout

Platypus
http://sveinbjorn.org/platypus

Pashua
http://www.bluem.net/en/mac/pashua/

CocoaDialog
http://mstratman.github.io/cocoadialog/

What Next?



What Next?

Improve our custom tools

Add new tools for
- enterprise file vault
- repairs to AD binding and device wireless auth.
- autorun of RMIT Network Connector
- Mac Support Summary auto submits ticket and console logs
- develop a banner showing that their RMIT or local password is about to expire
- provide scoped policies to install specialist printers
- reset local account passwords via self service (with complexity guide)
- leverage the API to deal with individual software license keys (eg VMware Fusion)
- use the API to provide live information to users about software in specific labs

embrace the community

- AUC
- Illuminate.mx
- Sydney MacAdmins
- MacBrained.org

- MacEnterprise
- JamfNation
- IRC ##osx-server
- Twitter #macadmin

Create the community

- RMIT is hosting /dev/world/ in September this year in partnership with AUC
- January 2015?

Questions?

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marcus.ransom@rmit.edu.au
twitter #xw14

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Thank you

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