Technical Training for Mac OS X Administrators

6 to 8 July 2011
University of Technology, Sydney
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Welcome to X World 2011

Colleagues,

I would like to extend a warm and hearty welcome to all X World 2011 delegates. This is our ninth X World, and it’s an event of which we’re justifiably proud.

From the start, X World was intended as a vehicle to support staff of AUC member institutions working with Apple technology in the systems and technical areas, and has proven so successful that we’ve used the same model for CreateWorld (serving those working in the creative spaces), and most recently for /dev/world (for MacOS and iOS software developers).

X World, like much of what we do in the AUC, has its foundations in two areas - a strong partnership with Apple, and huge support from our own community. Most of the speakers and workshop presenters are people like you - staff of AUC member institutions generously giving their time to share their experience and knowledge.

Our community is what defines us, and this spirit of sharing is one of the most important aspects of the AUC. I do hope that you enjoy your time at X World, and I urge you to get to know people from across our membership so that you can share your experiences, knowledge, successes and failures.

Holding an event of the scale of XWorld is a major undertaking, and a lot of people have contributed to make it a success. In particular, I would look to thank Thomas Esamie from UTS for providing us with labs for the workshop sessions, our very capable Programs Manager Andrew Jeffrey for co-ordinating the event, and the team at the Events Authority for their valuable assistance with registrations and organisation.

It is my sincere hope that during the next 3 days your time at X World will provide you with new and renewed friendships, new perspectives, solutions to problems, and most of all an enjoyable and rewarding time.

As you participate in this year’s event, please remember that many of the speakers are no different to you - they have a passion for supporting Apple technology in the workplace, and are generously giving their time to share their knowledge and help support our community. With this in mind, perhaps you might like to consider offering to present a session at next year’s event!

I wish you a warm welcome and a great conference.

Tony Gray
AUC Chair
## Agenda

### Wednesday 6 July

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>09:30</td>
<td>Registration</td>
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<tr>
<td>11:00</td>
<td>Welcome</td>
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<tr>
<td>11:15</td>
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<tr>
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<td>Presentations</td>
<td>Guthrie Theatre</td>
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<tr>
<td>17:00</td>
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### Thursday 7 July

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<tr>
<td>09:00</td>
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<td>See page 4</td>
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<tr>
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<td>Morning Tea</td>
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<tr>
<td>11:00</td>
<td>Session 1 cont</td>
<td>See page 4</td>
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<tr>
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<td>Session 2</td>
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### Friday 8 July

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<td>15:15</td>
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Sessions 1 & 2

Workshops are 180 minute hands-on labs with a 30 minute break. The presentation is a quick overview of the OS X certification exam and what topics will be covered and what you need to know if you want to complete the optional certification exam on Thursday evening.

Thursday 7 July

**Presentation**
Mac OS X System Essentials 101

**Workshops**
Managing & Hardening Snow Leopard: Policies for Use in Education
Using the Corona SDK for App Development
Problem Solving & Troubleshooting
Using Red Hat Server & Puppet for OS X Deployment
Building an SOE/MOE

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Thursday 7 July

**Presentation**
Mac OS X Server Essentials 201

**Workshops**
OS X Imaging, Software & Policy Deployment with Linux Services
Using the Corona SDK for App Development
Virtual Machines in Mac Teaching Labs
Munki Software Deployment
Building an SOE/MOE

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*Session 1*

09:00 to 12:30
Guthrie Theatre

*Lab 1*

Managing & Hardening Snow Leopard: Policies for Use in Education

*Lab 2*

Using the Corona SDK for App Development

*Lab 3*

Problem Solving & Troubleshooting

*Lab 4*

Using Red Hat Server & Puppet for OS X Deployment

*Lab 5*

Building an SOE/MOE

*Session 2*

13:30 to 17:00
Guthrie Theatre

*Lab 1*

OS X Imaging, Software & Policy Deployment with Linux Services

*Lab 2*

Using the Corona SDK for App Development

*Lab 3*

Virtual Machines in Mac Teaching Labs

*Lab 4*

Munki Software Deployment

*Lab 5*

Building an SOE/MOE
Feature Presentations

Wed 11.15am - 12.30pm
Mobile Podcast Producer
Paul Cowan, University of Waikato
& William McGrath, University of Auckland
This feature presentation will be showcasing use cases on utilizing Podcast Producer in OS X Server and its XML workflow based programability to provide atypical solutions to common IT problems, and enhancing the accessibility of PCP from a mobile context. We will briefly describing the internal structure of a podcast workflow to illustrate the potential power available to podcast workflows via XGrid, then assemble a customized podcast workflow from various components and do a live demonstration of sending a bundle of Word Docs containing class notes, PDF's containing powerpoint slides and videos of lectures to the PCP machine. The server will quickly return submitted content as a University of Waikato branded ePub hosted in Podcast Library, which would be demonstrated on an iPad. Podcast Producer will have converted the Word docs, PDF's and videos into a single ePub which can then be hosted via iTunes or placed into iTunesU.

Wed 1.30pm - 2.30pm
iPad in Tertiary Education
Daniel Figucio & Stephen Atherton, Apple
This presentation will look at how institutions and students around the world are using iPad in teaching, learning, and research. It builds upon last years’ AUC seminar on Mobile Learning which was delivered to over 1,300 colleagues at Australian and New Zealand AUC member universities. Various Apps will be demonstrated, case studies will be shared, and current research will be examined.

Wed 2.30pm - 3.00pm
Training Update
Dimension Data and KeyOptions offer a number of Apple Certified Training Courses and they will run through the courses they offer and why it is important to have certification and how the AUC can help.

The Apple Consultants Network (ACN) is a group of independent professional service providers and technology consulting firms that specialise in Apple and third-party solutions. Certified on Apple technologies, ACN members deliver on-site technology services and support to home users and businesses of all sizes. Learn more about the steps you can follow to join this exciting new Apple program.
Session Presentations

Wed 3.30pm to 4.15pm

Collaborative Learning Spaces at ANU
Matthew Tilney, Australian National University

A traditional computing lab will have a number of desktop computers sitting upon desks with each student using just one machine for their work. The teaching activities taught in these spaces generally focus towards individual work performed on the single computer of their choice. The Ethel Tory Centre incorporates a new idea that teaching can be a collaborative group process. Starting with language teaching, which was already taught using a collaborative method, the next step was to create a teaching space where the technology enhanced the environment. The practical implementation of this was through the use of Apple MacBook Pro’s on mobile desks which could be used in a number of configurations. One of these configurations utilised TV screens mounted to walls displaying Mac Minis controlled through collaborative software. The presentation will focus on the design and support considerations required for managing the machines. Covering items such as security, network, power management or the machines and the use of the collaborative software to remote control the minis.

Wed 4.15pm to 5.00pm

iPads at Adelaide University
Mike Seyfang

In September 2010 the Science Faculty at the University of Adelaide announced they would be replacing “traditional textbooks and other teaching materials in first year with online study tools. As part of the move, all students enrolled in the first year of an undergraduate Science program at the University for 2011 will receive a free Apple iPad.”

Mike Seyfang was heavily involved in the design and implementation of how the roll out worked and how the Faculty moved into the digital age.

Mike will cover what they learned from the whole process, its ongoing benefits (and issues) and what is next...


Fri 9.00am to 9.45am

Assessi
Grant Baxter, University of Otago

In 2005 the Assessi assessment prototype was presented at the “Evolution of the Species” AUC general conference in Hobart. Since then, the project has evolved and expanded into a piece of server based software that is used extensively within the Department of Design Studies at the University of Otago. Assessi is an advanced student assessment and management tool that allows teachers and students to create shared understandings of assessment and marking criteria. From being a small, unproven prototype, it has become a core piece of software that all staff have become dependent on.

This presentation will focus on a description of the software itself, development process and issues, issues of user “buy-in” and resistance to “new technology” (especially around such a sensitive issue as assessment), and a discussion of how a piece of software that staff were initially suspicious of has become a core piece of departmental technology.
Session Presentations (cont)

Fri 9.45am to 10.30am
Using FileMaker Go
Alistair Campbell, Edith Cowan University
These applications improve the the assessment process for both students and staff, and could enhance student engagement in the learning process. They removed the administrative and busy work involved in marking, no more adding up or creating lists of marks) and improves usability of student information (student information can be imported or exported directly from/to csv or excel documents); student photos can be added, emails can be sent directly from these applications, can be used to record notes on students etc. All this on the iPad is possible now using FileMaker GO.

Fri 11.00am to 11.45am
Managing iOS Devices
Andrew Wellington, Australian National University
With the increasing numbers of iOS devices in use methods for managing those devices are becoming more important. This session will provide an overview of methods, software and techniques that can be used to manage iOS from small to large numbers of devices.

Fri 11.45am to 12.30pm
Working with Sun Identity Management and Open Directory
Pascal Grosvenor & Jen Walbank, University of Technology, Sydney
The MOE system is now up and running at UTS. It’s a system that better integrates the Macs (regardless of whether they’re staff or student computers) into UTS’ enterprise systems and infrastructure. Another way of describing it would be a standardised, managed operating environment (MOE) for Macs. The presentation will cover the what’s happened with the project since X World 2010 as well a recent developments.

Fri 1.30pm to 2.15pm
Trinity College iPad Pilot
Trent Anderson, Trinity College, University of Melbourne
The presentation will cover: How the idea came about; Deployment and management of iPads; How the students found the iPads; How the staff found the iPads; Results from surveys; Effect on the IT department and IT infrastructure including wireless networks; Integration with existing systems; Where to from here.

Fri 2.15pm to 3.00pm
Animation renderfarm at DAB
Pascal Grosvenor, University of Technology, Sydney
The animationa renderfarm utilises Mac Pros and Xserves, Promise VTrak RAID, Autodesk Maya, and Rush render queue software. We are currently designing and setting up an all new renderfarm at DAB. This presentation will cover the history of the renderfarm over the last 2-3 years, new developments/ comments on the new design and how we plan to proceed.
Workshops

Building an SOE/MOE
Adam Reed, Australian National University
This hands on session will cover numerous aspect of building and maintaining a SOE/MOE including understanding OS X, software packaging, basic scripting and the command line. In addition you will see and use various tools that make managing a SOE easier. Finally you will gain some practical ideas that you can utilise in your environment. This session is a repeat from 2010.

Managing and Hardening Snow Leopard: Policies for Use in Education
Doug Brown, Redlands College
Managing client computers in large organisations can be daunting, particularly in education where students are constantly testing the boundaries. This seminar covers some of the more elaborate techniques I have developed to mitigate the threat presented by end users who attempt to elevate their access and circumvent out-of-the-box Snow Leopard settings.

Using the Corona SDK for App Development
Jayant C Verma, James Cook University
App development is considered a tedious or difficult task by many as it involves learning Objective-C that a lot of people shy away from. Apple opened up the use of other frameworks to develop for the iOS platform, and one such platform is CoronaSDK. This involves using a simple script like language called Lua and developing apps with Lua is very easy and quick, so for System Admins or IT departments that want to deploy apps quickly and not spend much time in development or are having issues with procuring talent, can now manage this in-house with CoronaSDK.
The workshop goes through the functionality of what CoronaSDK can do and then make a quick app with some functionality, add some text, some graphics, a map and some other elements in the simulator.

Problem Solving and Troubleshooting Methodologies
Daniel Rodwell, Australian National University
This workshop will cover how to take a issue that has been deemed “unfixable” and identify a resolution using structured methodologies.
The same techniques can be applied in System Administration, and resolving issues with these techniques can be faster and more assured than guesswork. We will cover some of the more common approaches such as Split-Half and Signal Flow Methods, as well as tips on how to dig yourself out of a situation where there appears to be no answer.
Similarly for Problem Solving, some problems appears to be so large and complex, that is hard to know where to begin. For problem solving, we will cover some Top-Down/Bottom-Up approaches, and how you can use analysis and synthesis to find a solution.
While most System Administrators have at some point had to perform troubleshooting, it’s often unstructured, time consuming and can be very frustrating.
Workshops (cont)

Using Red Hat Server & Puppet for OS X Deployment
Christian Unger, University of Queensland
What is an SOE and why is it important to server maintenance
How to build a Linux repository server
How to build a kickstart environment
Introduction to Puppet:
  how to configure a Puppet master
  how to use Puppet to complete and maintain your SOE
  writing flexible Puppet modules
  how to get the most out of different OS platforms
  what Puppet can and cannot do

OS X Imaging, Software and Policy Deployment with Linux Services
Doug Brown, Redlands College
For those who have a UNIX background, this session will be of particular interest as it covers adapting your existing DHCP, TFTP, HTTP, and FTP servers to support NetInstall of OS X and centralised management of OS X client software and policies using your existing Linux service infrastructure.

Virtual Machines in Mac Teaching Labs
Daniel Conway, University of Newcastle
The School of Design, Communication and IT at the University of Newcastle has for a number of years being running virtual machine platforms on both Parallels and VMWare Fusion. This year after 3 years of running both platforms during a pilot the School decided on running only Fusion for a number of reasons. As with all Institutions dollars talk and VMWARE’s education licensing is by far and away much more flexible that Parallels. We also found that in our environment, and therefore most HiEd environments, that Fusion was better able to meet that configuration needs of both academics in teaching and students in learning.

Munki Software Deployment
Jon Rhoades, University of Melbourne
Munki works by having a client on each Mac which checks the deployment server for a corresponding manifest of Software, which it then downloads the assigned packages and then it installs/updates/removes as required. Interestingly it can also fire off an Apple Software update, allowing a non admin users to initiate Apple updates. This workshop will demonstrate how munki works including, installation, creation of packages, manifests and its integration with Apple Software Updates, both with live demos & videos of the longer/trickier sections.
Meals & Social Activities

Meals
Morning and afternoon teas and lunch will be served in the Guthrie Foyer.

Please note that the DAB Café and courtyard on level 4 is privately owned and operated and not part of the catering for X World 2011. You are welcome to purchase food and beverages from the Café at your own cost.

Vegetarian options will be available during lunches and the dinner on Wednesday night. If you have any special meal requirements please let us know well in advance.

Breakfast on Thursday & Friday is at your own arrangements.

One of the important goals of X World 2010 is to foster collaboration amongst Universities and to help you build a network of colleagues from whom you can seek advice and guidance in relation to common issues with Mac OS X administration. Whilst each University is unique there are a number of common issues that we all face while administering Mac OS X and many people have found that having a good support network is a vital part of implementing solutions.

We have created a number of social breaks during X World during which we encourage you to meet staff from other Universities and exchange ideas and solutions. A full list of X World attendees will be available on the AUC web site after the conference.

X World 2011 Conference Dinner
On Wednesday night make the short walk to Darling Harbour and the Star Room at the IMAX Theatre. The Star Room offers sweeping views of the city of Sydney and Darling Harbour. Please arrive at the Star Room by 7.00pm.

Star Room, IMAX Theatre, Darling Harbour (see map on page 15)

Free Night
Thursday night is a free night for you and your new colleagues to explore Sydney. Why not visit the Apple Retail Store on George Street, catch the train from Central to Town Hall and it’s a short walk. There are also hundreds of restaurants and places to go within a few minutes walk of UTS including Darling Harbour, China Town, George & Pitt Streets and more....
<www.apple.com/au/retail/sydney/>
General Information

**UTS Security**

UTS Security Services operates a concierge desk on level 4 of Building 1, near the main entrance. The contact number is 02 9514 1192 or Free Call 1800 249 559. For emergency situations please call 000.

**Transport Contacts**

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<tr>
<td>Metro LightRail</td>
<td>02 8584 5288</td>
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<tr>
<td>Sydney Buses</td>
<td>13 15 00</td>
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<tr>
<td>Taxis Combined</td>
<td>02 8332 8888</td>
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<tr>
<td>Legion Cabs</td>
<td>13 14 51</td>
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<tr>
<td>RSL Taxis</td>
<td>02 9581 1111</td>
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**Internet Access**

Internet access will be via WiFi in the Guthrie Foyer and lunch areas. We will advise the Network ID and logon/password during the conference. A number of free access computers are located in the Faculty Computing Unit on Level 3.

**Banking Services**

A number of ATM’s are located within UTS, mostly in the Union area of Building 1. Local bank branches are located nearby along George Street. ATM’s are also located in the Darling Harbour shopping areas.

**Airline Contacts**

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**Accommodation Contacts**

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<td>Marque Hotel</td>
<td>02 9212 2544</td>
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<tr>
<td>Hotel UniLodge</td>
<td>02 9338 5000</td>
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The Faculty of DAB is located at 702-730 Harris Street, Sydney NSW on the Broadway site of the City Campus of the University of Technology, Sydney.

The Campus is just minutes walk from the City's central bus and train interchange providing services to:

- Sydney Harbour 15 minutes to the north
- our city beaches 20 minutes to the east
- and the Sydney International Airport, 20 minutes south.

X World 2010 will be held in the Peter Johnson Building (Building 6).

Entry is via Harris Street or the walkway over Harris Street from the main UTS campus.

Public transport is available via Sydney Buses and CityRail. Parking is available in nearby parking stations for a fee.
Peter Johnson Building 6

Guthrie Theatre & Foyer
Labs

Level 3
Level 3

Please Note: Due to construction work currently being undertaken for a new student accommodation block at the rear of Building 6 there may be some noise and disturbances occurring during X World 2011 as well as last minute room changes. We apologise in advance for any inconvenience and hope to minimise these at all times.