

# 15,000 Packages Can't Be Wrong!

## Systems Administration Using Debian Packages

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```
for C in santayana socrates  
plato boole leibniz  
wittgenstien popper mill; do  
scp this.bashrc $C:.bashrc;  
done<Enter>
```



Granular physics: A bridge to sandpile stability  
Peter Schiffer

# Simple Problems

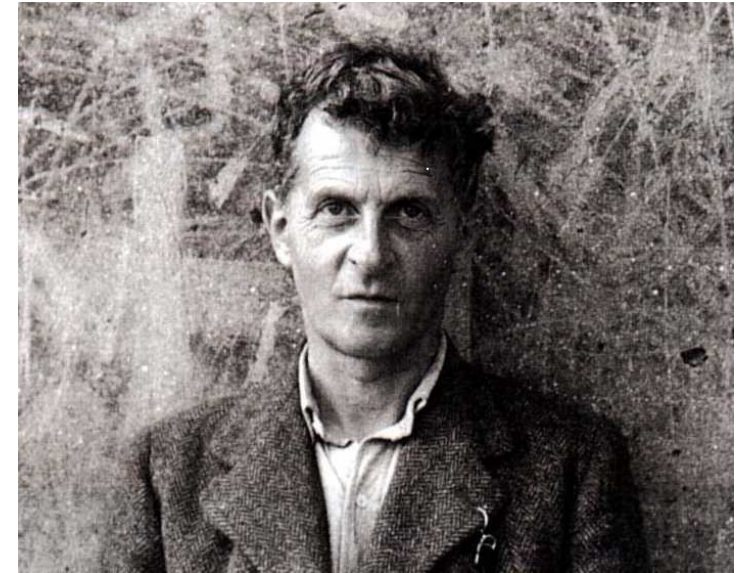
His name was “Wittgenstein”.



# Simple Problems

His name was “Wittgenstein”.

Two slides back there were a dozen systems, and I've already forgotten five of them!



# Deeper Problems

- It doesn't scale.
- It doesn't cope nicely with more complexly firewalled systems.
- So I wrote another shell script!
- Clearly, this was getting silly.



# Thinks!

- The common factor here was that these were all Debian systems.
- And I was a Debian developer.
- Or should those be the other way around?
- Anyway. On with the story...



# Other Thinks!

- There are other, more traditional approaches:
  - LDAP, centralised management, FAI
- These are all centrist, which wouldn't work well for our environment.
  - Machines on disparate, heavily firewalled and segmented networks.
  - Different geographical locations.
  - Different clients, including on their LAN, on the internet.
- A centri\$ approach would be expen\$ive

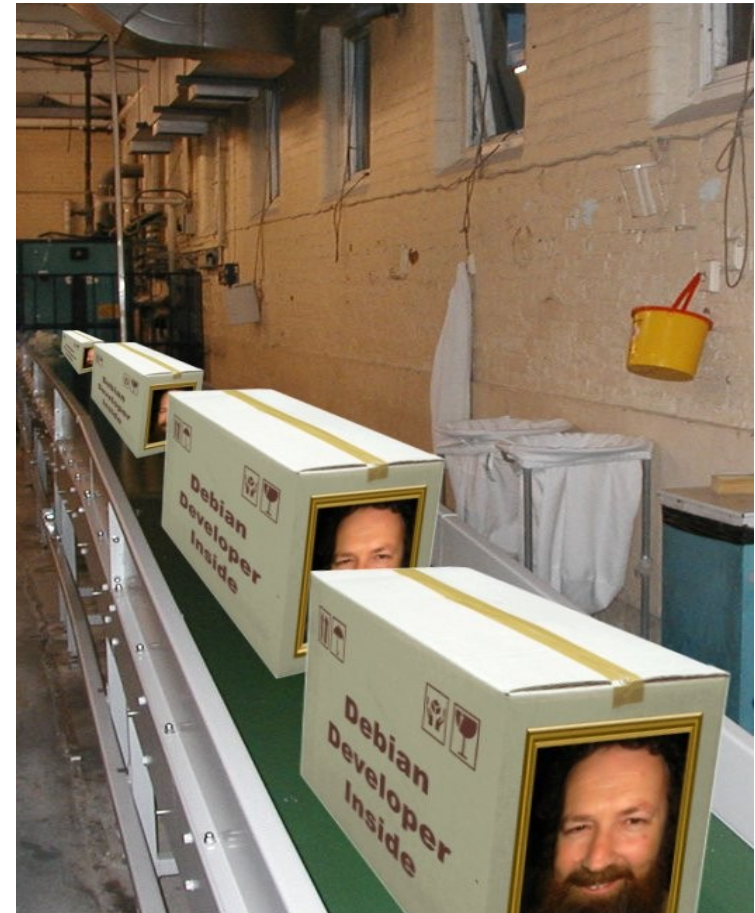
# Uses for Debian Packages

- User Management
  - Create account, disable account, remove account



# Uses for Debian Packages

- User Management
  - Create account, disable account, remove account
- Group Management
  - Sudo access, group membership



# More uses for Debian packages

- Standardisation
  - We do it this way, here, matey..., Metapackages depend / conflict
  - Apache logfile analysis.
- Configuration Management
  - Hostinfo database

# And, hang on, we could...

- Application Management
  - NZ Electoral Roll
  - tab.co.nz
  - mahara.org
  - .nz registry

# Catalyst User Packages

- Install account skeleton, including:
  - .bashrc, .bash\_profile, .ssh/authorized\_keys, ...
- Create account on 'install' (postinst)
  - Generate random password, encrypt to owner using GPG public key, optionally e-mail to them.
- Disable account on 'delete'
- Remove account on 'purge'

# Catalyst Hostinfo Package

- Gets information from system
  - Partitioning, Users, Groups, Packages installed and versions.
- Sends to central point to make a queryable database:
  - Which machines have apache, and which versions.



# Security Considerations

- You have to trust the person making the package.
- And everyone with control over what goes in there.
  - Separation of responsibilities.
  - Auditing.
  - Clients have to have that level of trust in us already.
- And everyone who develops for Debian!

Thank You

# Further Reading:

The Debian Packaging Manual