

# **Puppetising \$client**

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# WHAT IS PUPPET?



language => client/server => library



# WHO IS \$client?

A man wearing safety glasses and a dark t-shirt is working in a workshop. He is using a table saw to cut a piece of wood. Sawdust is flying in the air around the blade. In the background, there are stacks of wood and a yellow crane-like device.

national hire company  
largest .au desktop linux deployment



A close-up photograph of a LEGO figure, likely representing Merlin, wearing a blue wizard hat and having a white beard. The figure is holding a white staff. The background is a blurred, warm-toned indoor setting.

# WHAT IS MERLIN?

POS project  
Linux in every branch



**IN THE  
BEGINNING...**

# IN THE BEGINNING...

2004

FC3 + kickstart

“config” packages

# “config” packages

desktop apps  
daemons  
system





**3 PROBLEMS**



1:1



..





# multiplying hardware



:



:







# SHARED CONFIG





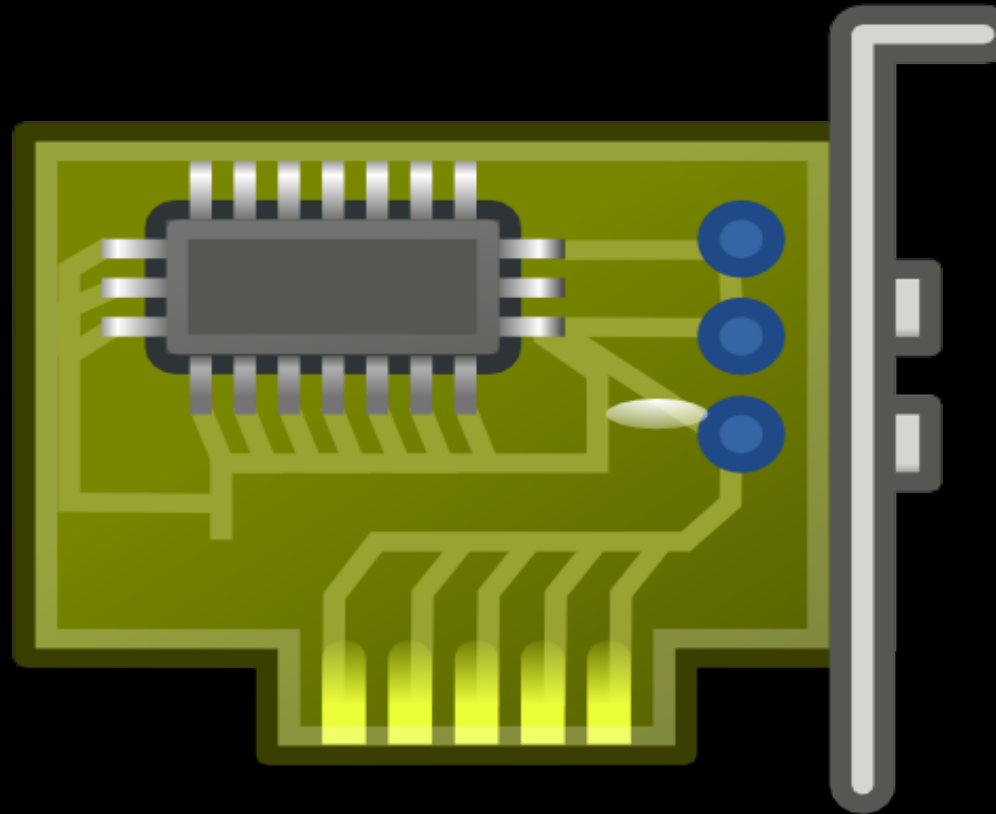




**workload x3**







the IBM lucky dip



# QUICK FIXES

# MODIFY KICKSTART

clone FC3 kickstart  
monkey patch to perfection



# BASTARDISE KICKSTART

not reproducible  
eventually abandoned







# **BUILD NEW PREP PROCESS**

**UPGRADE +  
PUPPETISED SOE**

**VERSION  
CONTROL  
EVERYTHING**



2 weeks of this







them

us



A photograph of a misty landscape. In the center, a white goalpost stands on a grassy field. The top bar of the goalpost is decorated with a string of small, colorful flags. In the background, a dense line of bare trees is visible through the mist. The overall atmosphere is quiet and contemplative.

“what is the bare minimum  
needed to make this work?”

set goals

# SETUP BOOT ENVIRONMENT

PXE

kickstart

apache

# ITERATIVE DEVELOPMENT

yum repos

system tools

apache, samba, cups, ldap, ...

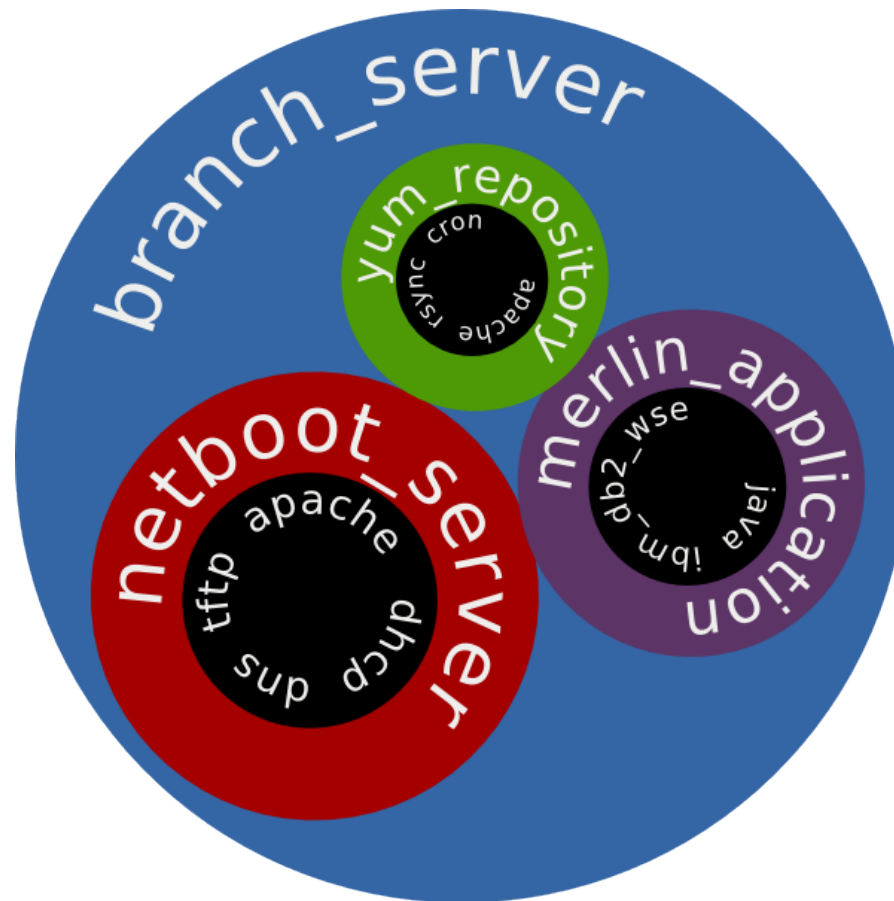
# ITERATIVE DEVELOPMENT

yum repos

system tools

apache, samba, cups, ldap, bind, dhcp,  
jabber, db2, pam, ssh, tftp, xorg, gnome

# OO for SYSADMINS







TEST LIKE  
THERE'S NO  
TOMORROW

# RESULTS?

# RESULTS

basic: 2 weeks

bugs: 1 week

flawless deployment

happy side effects





# HAPPY SIDE EFFECTS

rapid development  
reusable infrastructure  
hardware auditing  
versionable config



# **RAPID DEVELOPMENT**

# EXTREMELY RAPID DEVELOPMENT

cut development time  
reduce, reuse recycle  
example: front counter



# CODE REUSE

Don't Repeat Yourself  
repeat ROI  
shared improvements  
example: kenphp

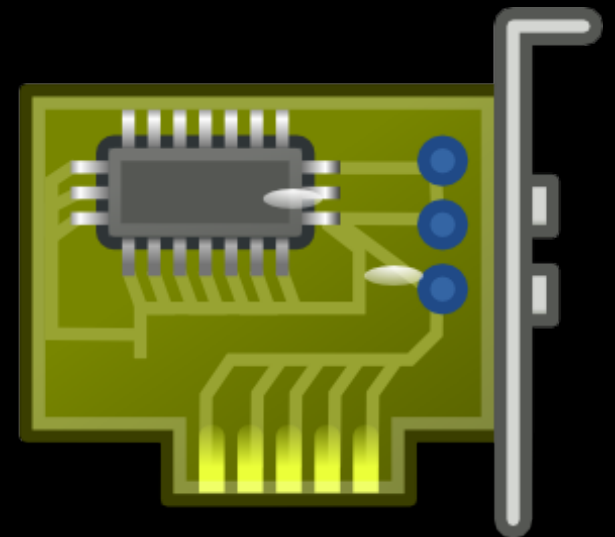


# HARDWARE AUDITING

get the facts

know where you stand

example: xorg config



# THE SAFETY NET

~~“point of no return”~~

multiple collaborators

example:

# QUIRKS + CHALLENGES

prep order

proprietary applications

vcs discipline



# PREP ORDER

many Puppet runs  
tagging





# PROPRIETARY APPS

DB2 hell

java printing



# VCS DISCIPLINE

support != programmers