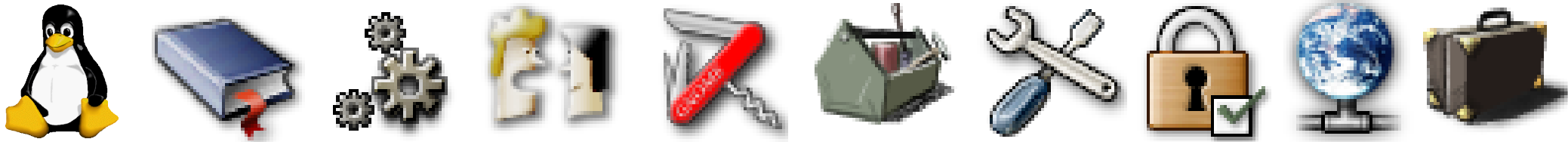


User to Hacker in 90 minutes

The tools and techniques needed
to actually contribute to an open
source project



foss.in

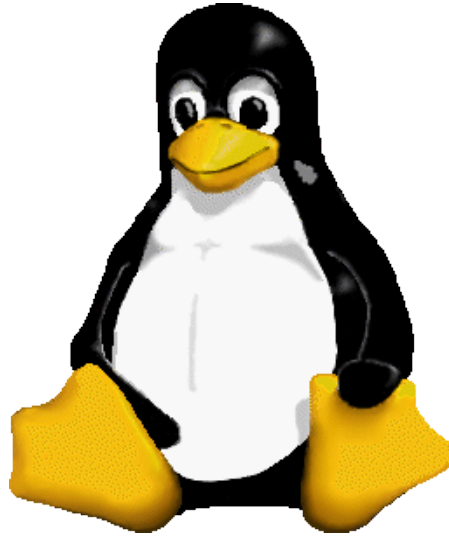
*foss.in 2007 – Bangalore
?? December 2007*



Andrew Frederick Cowie

Operational Dynamics
Consulting, Pty Ltd

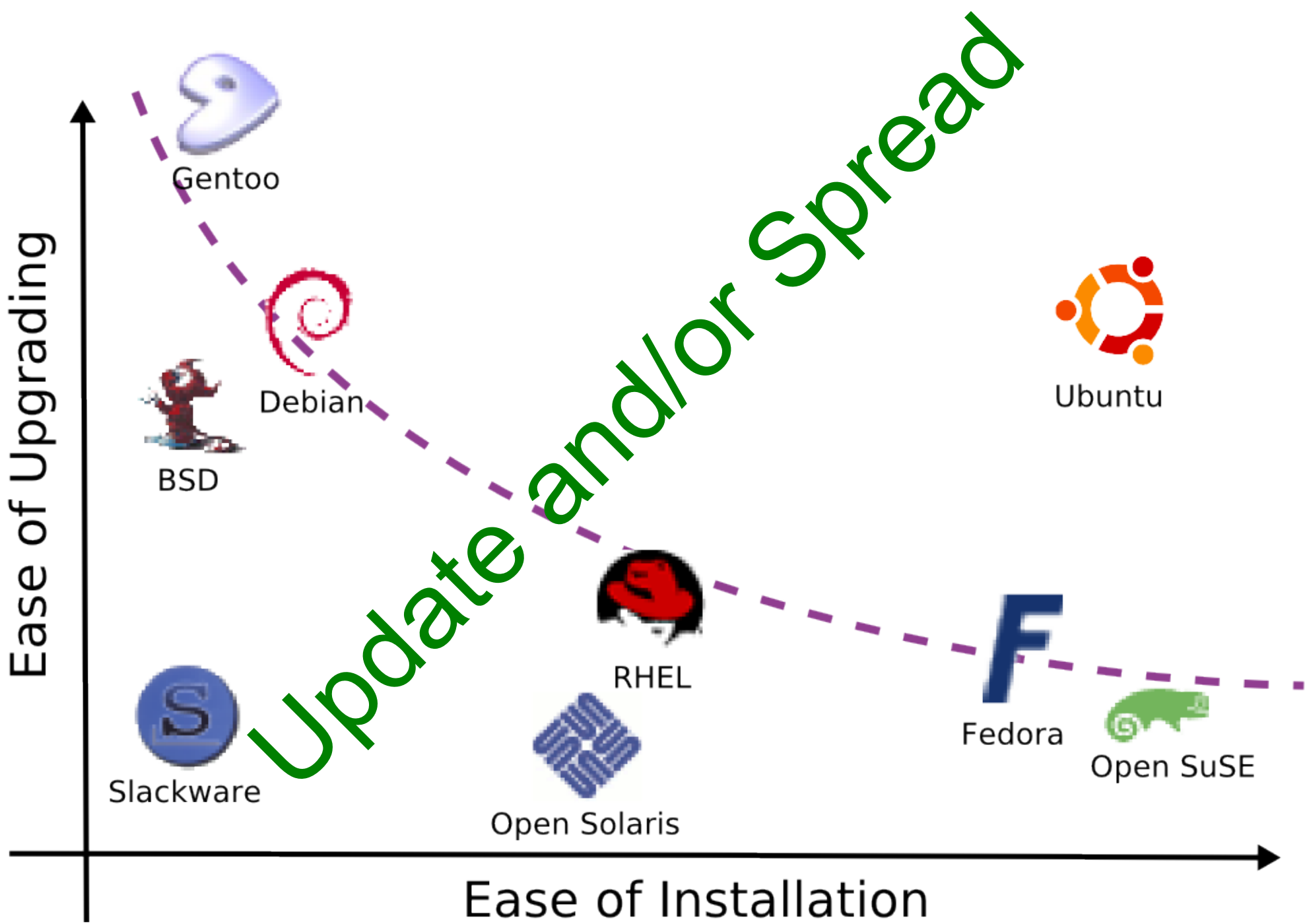
[i]



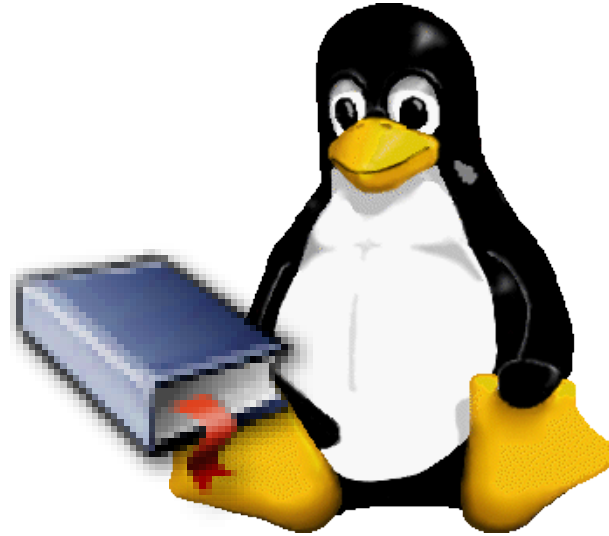
Choice

*The key to Unix has ever been using **more than one**;
once you've done that, you realize that it's all the same.
So just pick a Linux distro and try it.*





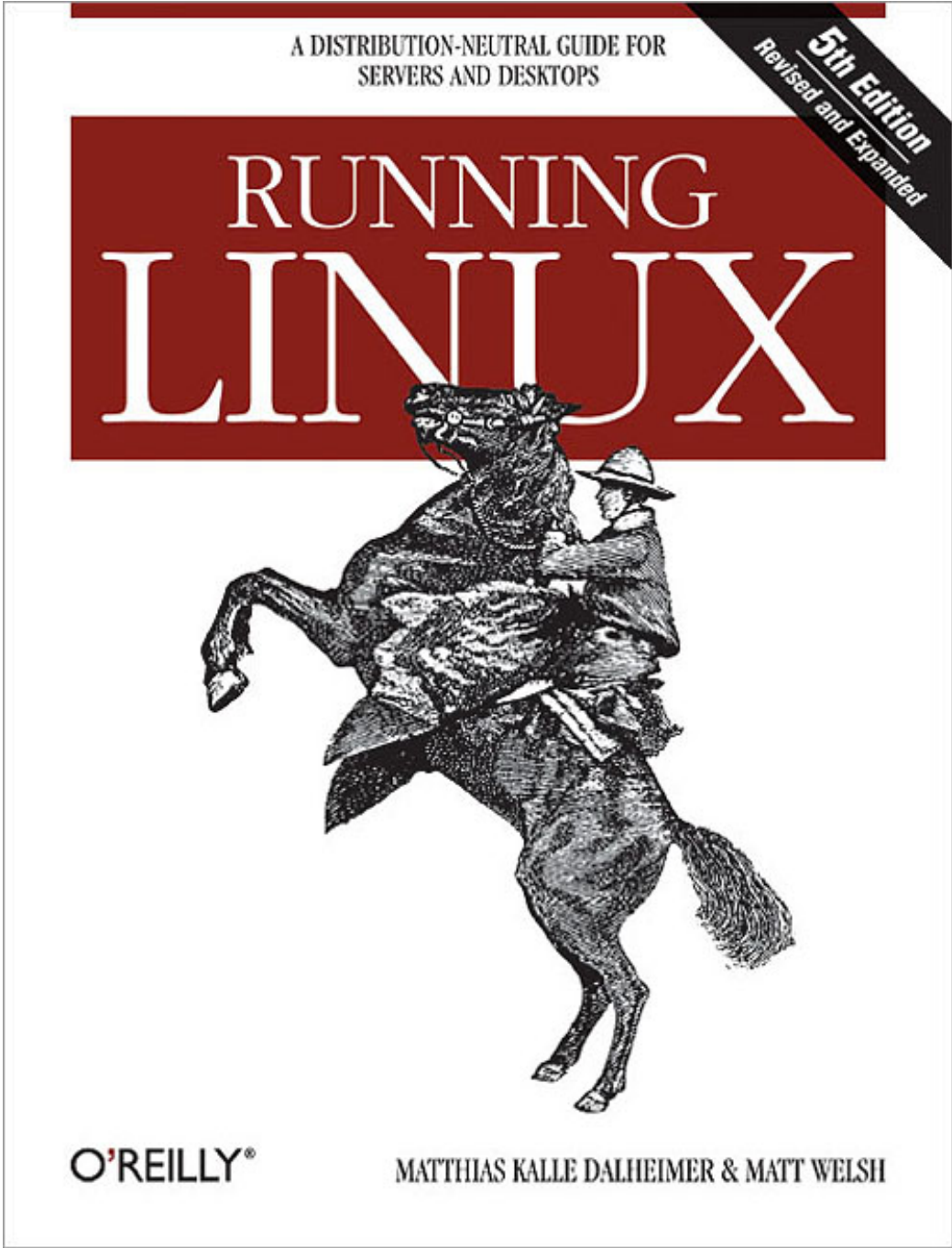
[i i]



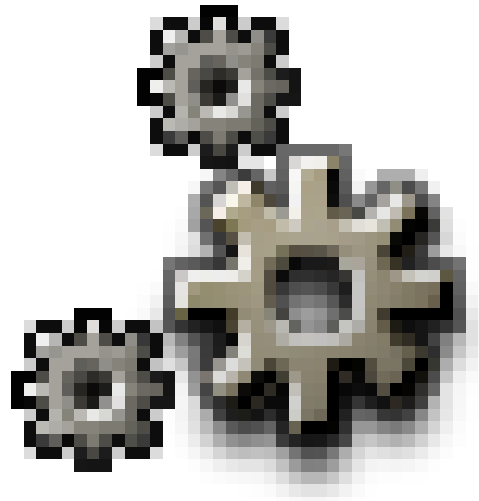
Book

Concentrate on learning the Unix way; only then try to figure out why Linux might have done it better.





I

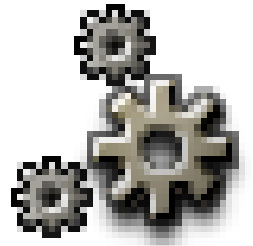


Replicate

If you can't duplicate the result, it's not science.



Duplicate the binary



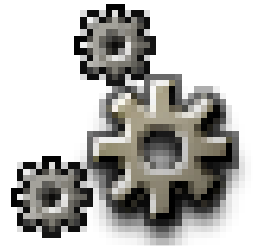
- If you can build the binary package from the sources that your Linux distribution makes available, then you know you have all the prerequisite pieces in place

```
# apt-get install *-devel
```

- Make sure the problem still occurs with what you just built and installed



Checkout sources



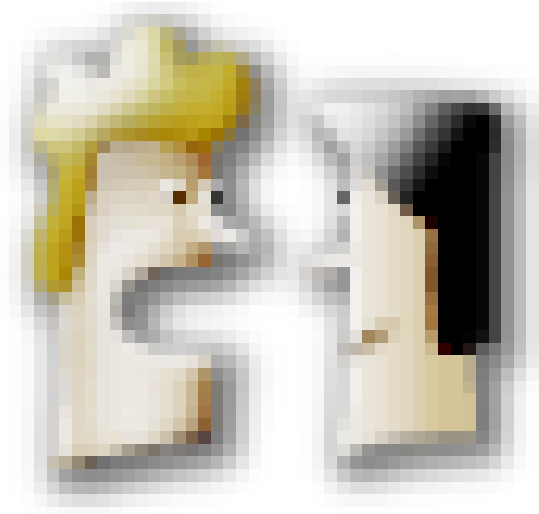
- Now that you know you have the prerequisites to build,

```
$ bzip2 clone http://example.com/project
$ cd project
$ ./configure
$ make
```

- Building the binary package from source first teaches you what configuration options you need



II

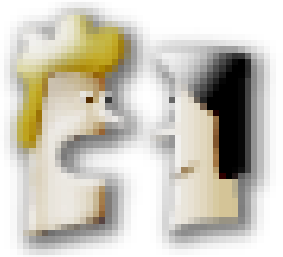


Interact

Open Source is a social phenomenon.

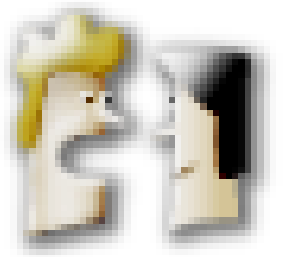


Do your homework



- Don't be afraid to ask for help
- But **demonstrate awareness and effort** first.
- Getting a feel for a community is **absolutely essential**. Learn how people interact: lurk on mailing lists and read archives!





Mailing Lists

IRC

- These are the way that free software communities communicate. Yes it's primitive. They've been on the net a lot longer than you have, so **deal**.
- Your first post should probably not be a critique of their project. Else:



HOW ABOUT A
NICE BIG CUP OF
SHUT THE FUCK UP



THINK BEFORE YOU SAY SOMETHING STUPID



III

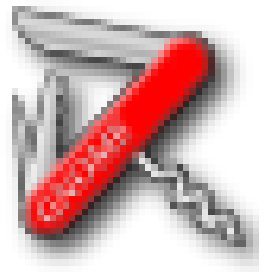


Crash

How to get a stack trace



Get a stack trace



```
$ ./program  
Aborted
```

```
$ gdb ./program  
(gdb) run
```

```
Program received signal SIGSEGV,  
Segmentation fault.  
(gdb) bt
```



IV



Report

If at first you don't succeed, try try again



Filing bugs



<http://bugzilla.gnome.org>

- At least *try* searching for a related issue first.



Filing bugs

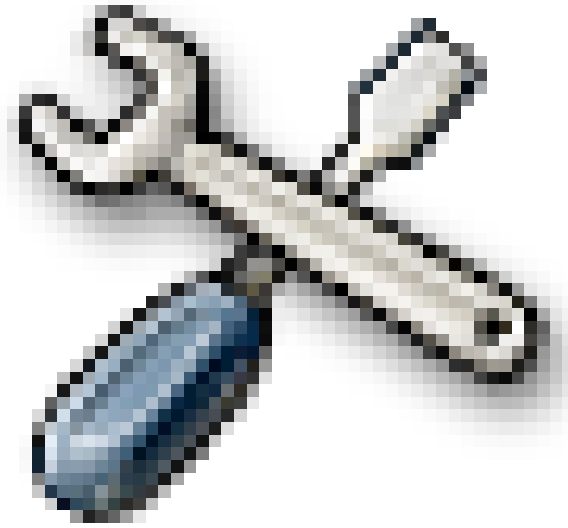


WONTFIX

- Being told they won't fix it is a fact of life.
- Remember: **they don't work for you.**



V

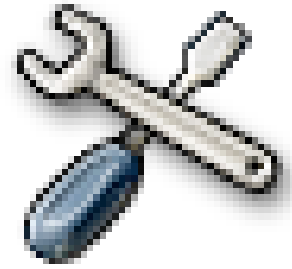


Request

A day in the life



Hack, Drink, Sleep.



```
$ bzz branch
```

```
Code
```

```
Test
```

```
$ bzz commit
```

```
$ bzz merge
```

Repeat.



VI



Contribute

*If it's that important to you, then why don't **you** do it?*



Create patch;



```
$ bzz branch
```

```
Code
```

```
Test
```

```
$ bzz bundle > submission.patch
```

```
Email
```

Submit



Acceptable?



```
$ bzip branch  
$ bzip merge submission.patch
```

Review

Fix

```
$ bzip commit
```

- Having a patch rejected is not uncommon. People care about their code, and don't want you messing it up! Listen to what they say, and try again.



Publish!



```
$ bzz push
```

- And thus eventually you will see your work in the public repository!



A



Reputation

Strengthen the web of trust





How do I know you are who you say
you are over the 'net?

How can I protect my digital
reputation?





```
$ gpg --verify email.txt
```

```
Signature made 2007-03-30T10:26:47 UTC  
using DSA key ID 57F6E7BD
```

```
Good signature from "Andrew Frederick Cowie  
<andrew@operationaldynamics.com>"
```

That's how.





0945 9282 449C 0058 1FF5 2852 2D51 130C 57F6 E7BD

Number of signatures: 184

Mean square distance from strong set: 3.8779

Current global key rank: 105th. 52 week high: 65th

Does this matter? No. But it's pretty cool.

**Make an OpenPGP key. Sign some
keys. Get your key signed. And then
use it!**



Appendix

B



Thanks

There are already many open source hackers amongst you; it's been a privilege being here.





Top Secret



See you 'round the net!

irc.gimp.net (irc.gnome.org):

#java-gnome
#gnome-hackers
#gtk+

irc.freenode.net:

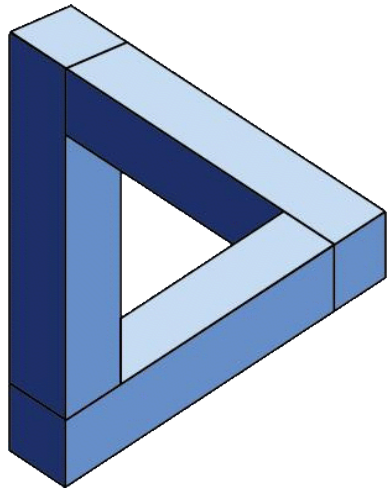
#gentoo-java
#classpath
#bzz
#linux-aus



GNOME



Operational Dynamics



AfC

0945 9282 449C 0058 1FF5 2852 2D51 130C 57F6 E7BD



Operational Dynamics

Andrew Frederick Cowie

Managing Partner

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