

# Thing you should know about Free Software and Software freedom



Lumin @ XDLinux  
Debian Contributor



# git



Open source



# Difference: non-free & free

Ask me about

# Free Software



It's all about freedom.

<http://www.fsf.org>

# Utilize: Non-free software

- 个人使用，不可商用
- 商用需授权

注：始终以软件附带的用户协议 / 许可证为准

# Trouble of Non-free: License

- 使用受法律 / 用户协议限制  
(滥用可能会吃传票)

# Utilize: free software

- 随使用

注：始终以软件附带的用户协议 / 许可证为准

# Study: Non-free software

Reverse Engineering Non-free Softwares (Binary blob)

```
ef 83 7e fc 2a 0f 84 35 03 00 00 48 8d 41 04 c7
01 2a 00 00 00 c7 00 00 00 00 00 8b 0d 3b e7 2a
00 ba 20 00 00 00 85 c9 0f 84 5a 02 00 00 48 8b
74 24 40 48 89 df e8 b5 cf 03 00 48 39 5c 24 10
74 1a ba cf 10 00 00 be 88 c1 4b 00 48 89 df 89
44 24 28 e8 58 4d 02 00 8b 44 24 28 83 f8 01 74
31 48 8b 74 24 38 48 8b 7c 24 10 e8 c0 04 04 00
89 44 24 28 8b 44 24 0c 83 f8 01 0f 84 67 05 00
00 83 f8 02 0f 84 7e 04 00 00 85 c0 0f 84 e9 02
00 00 31 db 48 8b bc 24 98 00 00 00 ba 43 11 00
00 be 88 c1 4b 00 e8 05 4d 02 00 48 8b bc 24 90
00 00 00 ba 44 11 00 00 be 88 c1 4b 00 e8 ee 4c
02 00 48 8b bc 24 a0 00 00 00 ba 45 11 00 00 be
```

# Trouble of Non-free: License

- 使用受法律 / 用户协议限制
- 禁止逆向工程 ( e.g. GIT 历史)

(逆向工程不仅可能破坏商业合作关系，也可能吃传票)



# Study: Free Software

```
#include <unistd.h>
#define BANNER "hello, world!\n"
int
main (int argc, char **argv)
{
    write(1, BANNER, sizeof(BANNER));
    return 0;
}
```

```
00 83 f8 02 0f 84 7e 04 00 00 85 c0 0f 84 e9 02
00 00 31 db 48 8b bc 24 98 00 00 00 ba 43 11 00
00 be 88 c1 4b 00 e8 05 4d 02 00 48 8b bc 24 90
00 00 00 ba 44 11 00 00 be 88 c1 4b 00 e8 ee 4c
02 00 48 8b bc 24 a0 00 00 00 ba 45 11 00 00 be
```

# Distribute: non-free

- 禁止分发原始版本
- 禁止分发第三方修改版本
- 禁止未授权情况下销售

注：始终以软件附带的用户协议 / 许可证为准

# Trouble of Non-free: License

- 使用受法律 / 用户协议限制
- 禁止逆向工程 ( e.g. GIT 历史 )
- 禁止在未受许可的情况下分发  
( 传票 )

# Distribute: free software

- 随便分发
- 经过第三方修改的仍然可以随便分发
- .....
- 甚至可以直接拿去卖
- 经过第三方修改的仍然可以直接拿去卖
- .....

注：始终以软件附带的用户协议 / 许可证为准

# Compare: Non-free & free

## Non-free Software

- 使用受法律 / 用户协议限制
- 禁止逆向工程
- 禁止在未受许可的情况下分发

## Free Software

- 随意用
- 随意研究
- 随意修改
- 随意分发

注：始终以软件附带的用户协议 / 许可证为准

# Core reason: License

- Commercial Software:  
Commercial License
- Free Software  
GPL, BSD, MIT, Apache ...



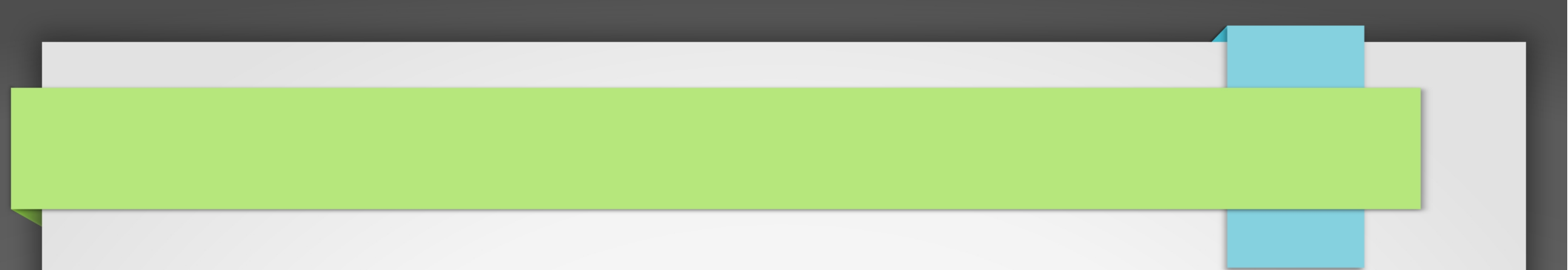
Why Should I know this ?

Because you'll live harder without them ...

# Where Free Software is used

- 互联网基础骨干设施 (Backbone Routers)
- 无数企业的服务器部署 (Server)  
(互联网公司)
- 交通控制系统，包括铁路与航空 (Traffic Control)
- 超级计算机 (Super Computers)  
(天气预报，动画渲染，蛋白质解析，石油勘探)
- 国际空间站 (Space Station)
- 各种嵌入式设备，包括您的 Android 手机



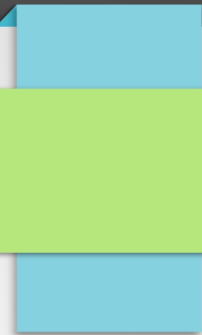
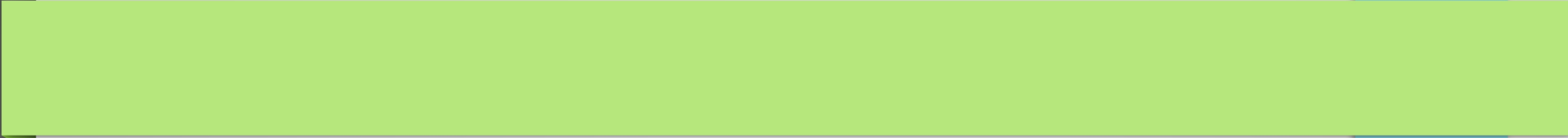


**Who** Launched free software Movement  
?



Richard. M. Stallman

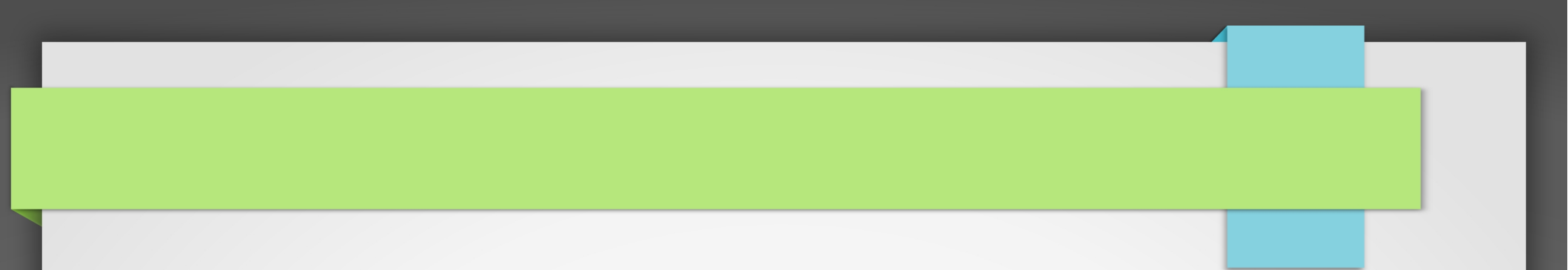




Either throw Windows out of the  
computer or throw the computer  
out of the window

-

On hearing someone owns a  
GNU+Linux/Windows dual boot  
machine



The Adobe flash plug-in is non-free software, and people should not install it, or suggest installing it, or even tell people it exists

-

On OpenBSD mailing list



If the users don't control the  
program, the program controls  
the users.

-

Free Software Is Even More  
Important Now



Who Created Linux ?

Linus





Linus Torvalds



git



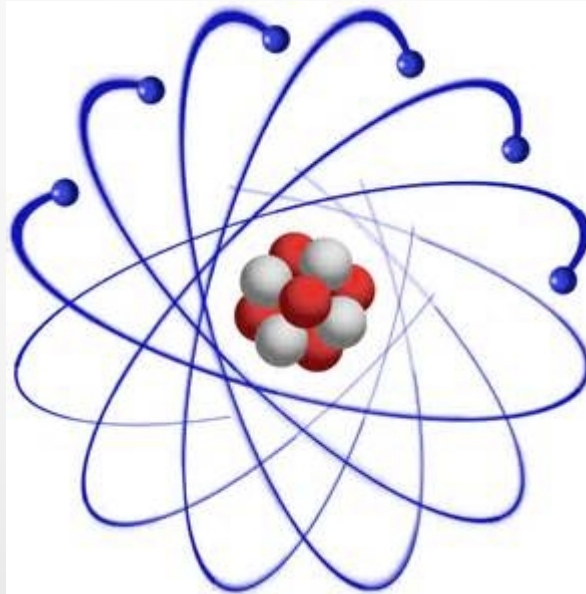
# LOGO - 1



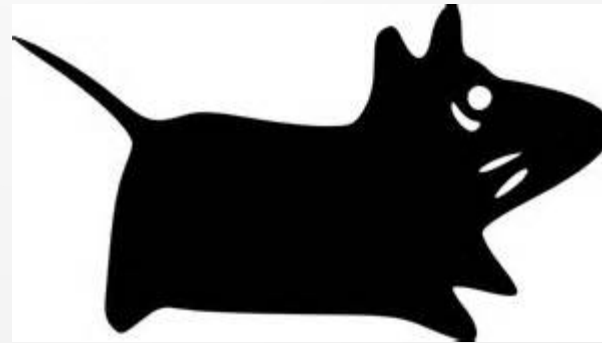
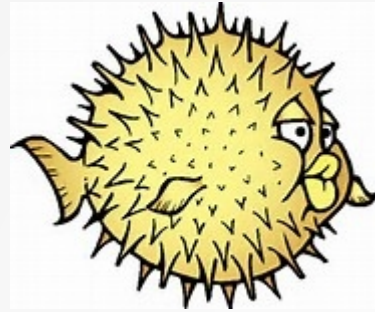
# LOGO - 2



# LOGO - 3



# LOGO - 4

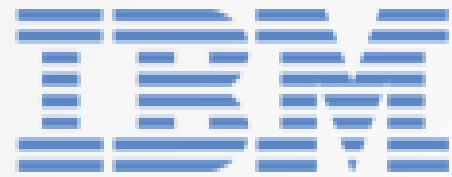


# LOGO - 5



...

Who is supporting free software



And Many Other Companies,  
And ...

## And US: 西电开源社区

<http://xdlinux.info>

Participating :

- 线下活动 ( Hacking Saturday )
- 随机讲座
- 邮件列表 ( Mailing list )
- 随机约吃
- QQ 群 : 2261 98461



# Not the End of SFD 2015

E楼 II 区 523 教室  
19:00

Workshop :  
Linux Install Party

Thanks