

[StuCo 98008] GNU/Linux for Beginners

Session 6

The Art of Troubleshooting

By the end of this lecture you will know

- How to get more information about an application
- How to use the UNIX manual pages
- How to find solutions on the Web
- How to ask for help in mailing lists

Find the solution online

- Search engines: query web pages and USENET archives.
 - <http://www.google.com> (web + groups)
 - <http://marc.theaimsgroup.com>
- Special GNU/Linux help websites
 - <http://tldp.org> - The Linux Documentation Project
 - <http://justlinux.com/nhf>
 - <http://www.mandrakeuser.org/docs/index.html>
 - <http://www.linuxquestions.org/questions/index.php>

Learn more about your application

- Application homepage
 - FAQ section
 - Mailing lists section
- Documentation installed on your machine
 - `/usr/share/doc`
 - Comments in configuration files
 - Manual pages (man)

Help on Command-Line Tools

- Manual pages
 - \$ man “java”
 - Search for strings with / (same with less, vi)
 - \$ apropos “java” (all relevant man pages)
- Info pages
 - \$ info emacs (CTRL-X CTRL-C to get out)
 - “**info:**” in Konqueror address bar (simpler to use)
- \$ whatis df

Mailing Lists

- Resist the temptation – never send a personal email
 - Goes double for developers
 - Goes quadruple for Linus himself (!)
- Know the code of conduct of each mailing list (netiquette)
- General rules
 - Be **polite**, they're doing you a favor anyway
 - Be **precise**, they can't read minds
 - **Try** to solve your problem before asking for help
 - Send [SOLVED] and thank people who help you

Style Crimes

- <http://www.catb.org/~esr/faqs/smart-questions.html>
- “Linux SUCKS!”
- “I NEED HELP FAST QUICK AND PRONTO”
- “My computer doesn't work! Help!”
- Top-posting
- HTML email
- Quoting 5,000 lines to add a “Yeah, me too”.
- Replying to an irrelevant thread.
- Ditto, but changing the Subject field.



How to figure out what's wrong

- Is it a GUI application?
 - Run it from the command line
- Is it a daemon/server?
 - Check system logs like `/var/log/messages`
 - `# grep -n "dsl" *.log`
- What is the application doing?
 - `$ strace <application name>`
 - `$ lsof | grep "application name"`
 - `$ ps auxf` (look for parents/children)
 - `$ top -c`