Ch5 Linux Programming Tool

謝明志(Jimin Hsieh)

Agenda

- Ch5-1 vi/vim
- Ch5-2 Linux Compiler
- Ch5-3 Meld
- Ch5-4 Linux Compiler
- Ch5-5 Version Control

vi / vim

- vi – text editor
- vim – inherit from vi (similar tool: emacs)
- # vim [file]
- ~/.vim/vimrc: vim config file
- vgod's vimrc: wget -O https://raw.github.com/vgod/vimrc/master/auto-install.sh | sh

vim shortcut

- "i" - insert mode
- "Esc" - exit insert mode to normal mode
- "h" - left
- "j" - down
- "k" - up
- "l" - right

- "w" "W" – forward by one word
- "b" "B" – backward by one word
- "dd" – delete whole line
- "/" - search strings
- "n" – next search result
- "N" – back search result

vim shortcut

Command Line

- ": number" - to specific number line
- ":sp" or "vsp" : split window
- "!gcc % && ./a.out"
- ":w" – save file
- ":q" or ":q!" – exit

Buffer movement

- "Ctrl + w + w"- next buffer
- "Ctrl + w + p" – previous buffer
- "Ctrl+w+h" - left buffer
- "Ctrl+w+l" - right buffer
- "Ctrl+w+j" - down buffer
- "Ctrl+w+k"- up buffer

Vim's plugin - cscope

- cscope
  - # cosope –bR
  - # cscope -d

```
Cscope version 15.7a                          Press the ? key for help




Find this C symbol:
Find this global definition:
Find functions called by this function:
Find functions calling this function:
Find this text string:
Change this text string:
Find this egrep pattern: █
Find this file:
Find files #including this file:
```
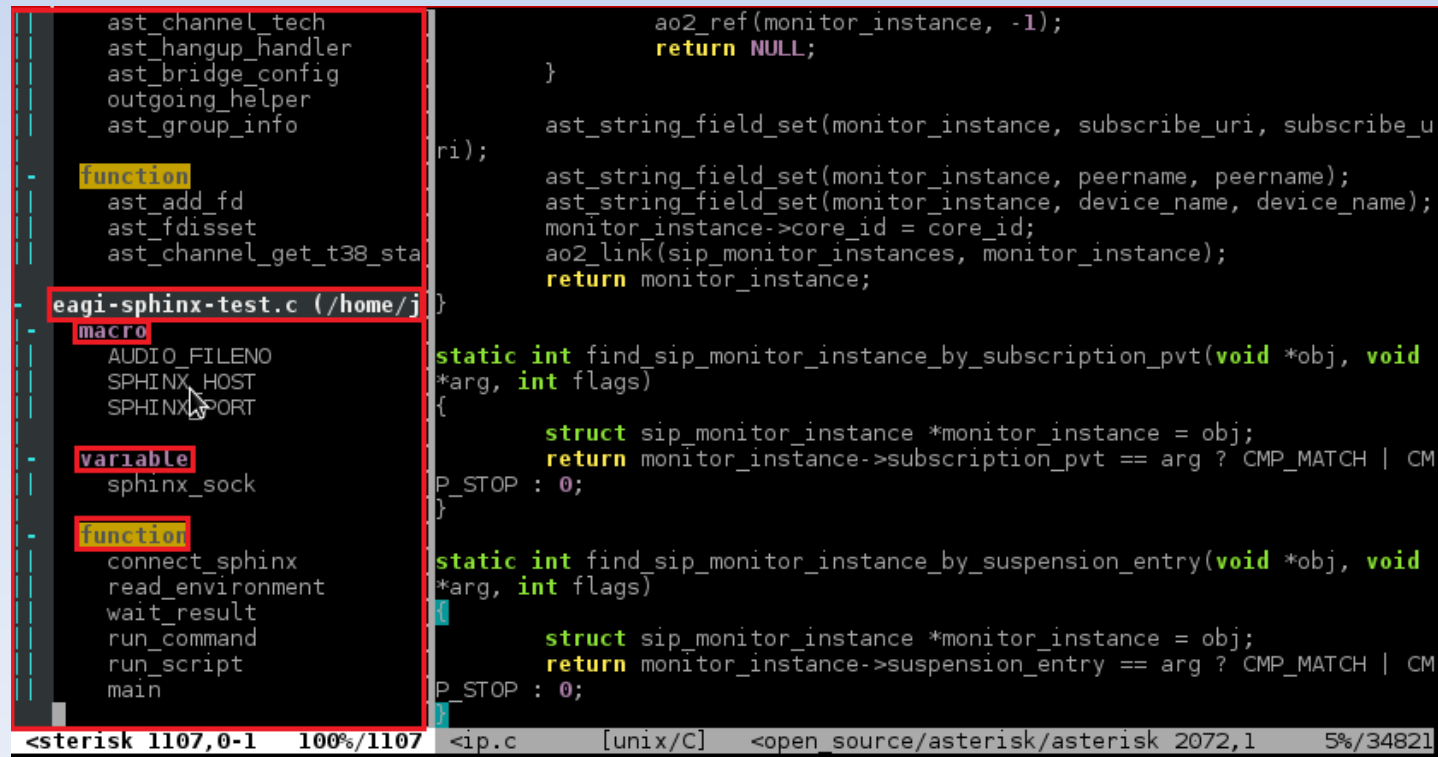
Vim's plugin ctags

- ctags
  - # ctags –R
- ctags in vim's normal mode
  - "Ctrl +]"
  - "Ctrl + T"
  - ":ta [tag]"

Vim's plugin Taglist

1. unzip taglist.zip

2. copy "doc" and "plugin" to "~/.vim"

- Taglist in vim

  – ":Tlist"

screen

- # screen
- In screen mode
  - Ctrl-a c: create new buffer
  - Ctrl-a w: show how much buffer and in which buffer
  - Ctrl-a ": list all buffers
  - Ctrl-a n: move to next buffer
  - Ctrl-a p: move to previous buffer
  - Ctrl-a 7: open buffer 7

screen(con.)

– Ctrl-a S: split window horizontal

– Ctrl-a | : split window vertical

– Ctrl-a TAB: switch

– Ctrl-a x: close window

– Ctrl-a Q: close all window expect the current one

– Ctrl-a d: detach from the current screen session

Linux Compiler

GNU Compiler Collection

Across multiplatform

- C language: gcc
  - # gcc [file.c] -o -Wall [execution file]

- C++ language: g++
  - # g++ [file.c] -o -Wall [execution file]

Compare tool

- diff
  - # diff –u file file
  - # diff -ur directory/ directory/
- Meld

Meld

Version Control - svn

- Subversion

svn checkout [file]

svn commit .

svn diff

- GUI - TortoiseSVN

Version Control - git

- Git
- Founder: Linus Torvalds
- Github: https://github.com

git clone

git pull

git add

git status

git commit

git push

git branch [name]

git checkout [branch name]

Q&A

Thanks for you attentions!