

Cscope

Multicore Programming

Introduction

- What is Cscope?
- Installing Cscope
- How to use?
- Practice

What is Cscope?

- Developer's tool for browsing source code
- Allows searching code for
 - All references to a symbol
 - Global definition
 - Functions called by a function
 - Functions calling a function
 - Text string
 - Regular expression pattern
 - A file
 - Files including a file

Installing Cscope

```
$ sudo apt-get install cscope
```

- create mkcscope.sh file

```
#!/bin/sh
rm -rf cscope.files
find . \( -name '*.c' -o -name '*.cpp' -o -name '*.cc' -o -name '*.ic' -o -name '*.h' -o
-name '*.hpp' -o -name '*.s' -o -name '*.S' \) -print > cscope.files
cscope -b -q -k
```

- You can just download this from Piazza page

Installing Cscope

- Set permission & path of mkcscope.sh

```
$ chmod 755 mkcscope.sh  
$ mv mkcscope.sh ~/bin/
```

- Hot key mapping for vim
 - Download 'append_this_to_your_vimrc' from Piazza page, and append it to your ~/.vimrc

How to use?

- Generate Cscope database files

```
$ mkcscope.sh
```

- with Vim, you can execute Cscope command

```
:cs find c|d|e|f|g|i|s|t name
```

How to use?

- Query type

- 's' symbol: find all references to the token under cursor
- 'g' global: find global definition(s) of the token under cursor
- 'c' calls: find all calls to the function name under cursor
- 't' text: find all instances of the text under cursor
- 'e' egrep: egrep search for the word under cursor
- 'f' file: open the filename under cursor
- 'i' includes: find files that include the filename under cursor
- 'd' called: find functions that function under cursor calls

Practice

- Practice on your Project 1, or TA's project 1 code uploaded at Piazza page

Thank You
