# CS542200
# Parallel Programming

Basic ViM Tutorial

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# Outline

Basic Concepts

Common Operations
- *Open / Close / Suspend / Resume*
- *Normal-Mode / Insert-Mode / Visual-Mode*
- *Cursor movements*
- *Screen Scrolling*
- *Copy / Paste / Delete*
- *Undo / Redo / Search*

# Basic Concepts

ViM is a modal editor
- ◦ VIM has 11 modes
- ◦ Users should always aware of current mode


ViM uses keyboard only
- ◦ this can be pretty difficult to learn
- ◦ "Google is your best firend"

# Common Operations



http://blog.vgod.tw.s3.amazonaws.com/wp-content/uploads/2009/12/vim-cheat-sheet-full.png

# Common Operations 1

*Open / Close / Suspend / Resume*

Open / Close File: [:help write-quit]
- `vim file.txt`
- `:q`

Suspend / Resume
- `<Ctrl> + <Z>`
- `jobs`
- `fg [number]`

# Common Operations 2
*Normal-Mode / Insert-Mode / Visual-Mode*

## Normal Mode <Esc>
- Every entered are interpreted as commands
- One can always switch to this mode by double tapping <Esc>

## Insert Mode <i> <I> <a> <A> <o> <O>
- Most keys are inserted as text

| | |
|---|---|
| i | switch to insert-mode before cursor |
| I | switch to insert-mode and jump to first non-blank character of this line |
| a | switch to insert-mode after cursor |
| A | switch to insert-mode and jump to the end of the line |
| o | Add a new line after current line and get into insert-mode |
| O | Add a new line before current line and get into insert-mode |

# Common Operations 2 (cont'd)

*Normal-Mode / Insert-Mode / Visual-Mode*

Visual Mode <v> <V> <Ctrl + v>

◦ Visually select some texts (with most normal-mode commands)

| | |
|---|---|
| v | Switch to the visual mode (character oriented) |
| V | Switch to the visual mode (line oriented) |
| Ctrl + v | Switch to the visual mode (block oriented) |

To Sum up:



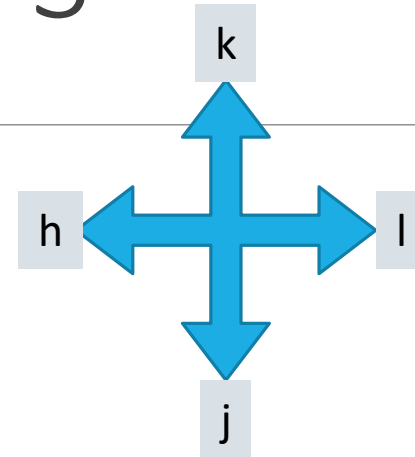| Insert Mode | Command Mode | Visual Mode |

<i> <I> <a> <A> <o> <O>

<v> <V> <Ctrl + v>

<Esc>

<Esc>
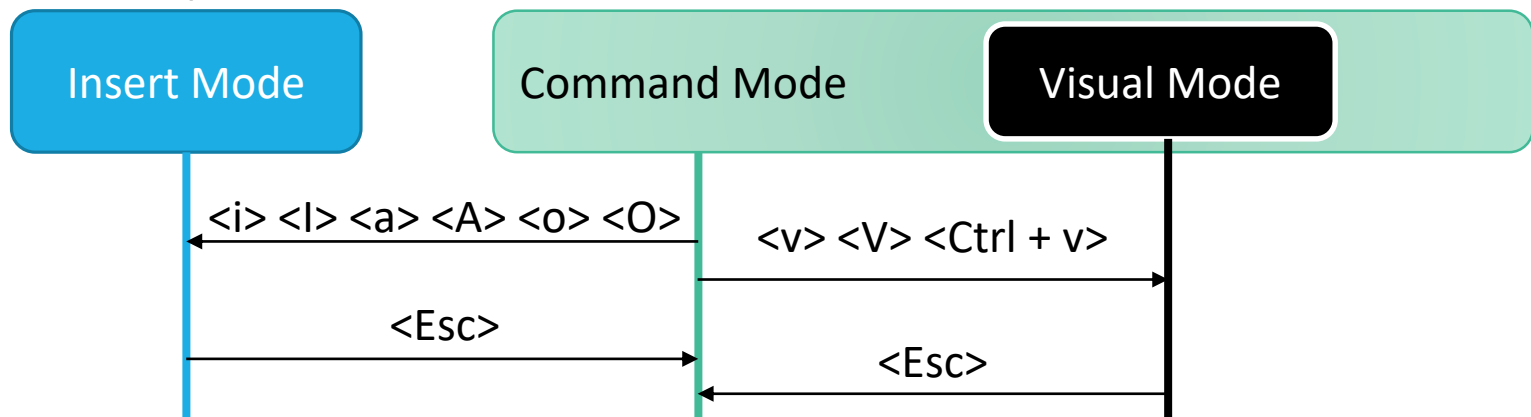
# Common Operations 3

*Cursor movements*

## Move in character unit

- in vi (normal mode)    <h> <j> <k> <l>
- in vim (any mode)      <←> <↓> < ↑ > <→>

## Move in word unit

| | |
|---|---|
| w | Jump to the beginning of next world |
| W | Jump to the beginning of next world, ignore punctuation |
| e | Jump to the end of next world |
| E | Jump to the end of next world, ignore punctuation |
| b | Jump to the beginning of last world |
| B | Jump to the beginning of last world, ignore punctuation |
| ge | Jump to the end of last world |
| gE | Jump to the end of last world, ignore punctuation |

k

h          l

j

# Common Operations 3 (cont'd)

*Cursor movements*

## Move to the beginning / end of one line

| | |
|---|---|
| Home / 0 | Move to the first column of the line |
| ^ | Move to the first non-blank column of the line |
| End / $ | Move to the last column of the line |
| g_ | Move to the last non-blank column of the line |

## Move to somewhere relative to screen

| | |
|---|---|
| H | Move to the top of current screen |
| M | Move to the middle of current screen |
| L | Move to the bottom of current screen |

# Common Operations 3 cont'd

*Cursor movements*

Move to any line in a file

| [num]G / :[num] | Move to the line with line number [num] |
|---|---|
| gg | Move to the first line of the file |
| G | Move to the last line of the file |
| [num]% | Move to the line at [num]% relative to the file |

# Common Operations 3 cont'd
*Screen Scrolling*

| | |
|---|---|
| Ctrl + F / PgDn | Scroll the screen one page forward |
| Ctrl + B / PgUp | Scroll the screen one page backward |
| Ctrl + E | Scroll the screen one line forward |
| Ctrl + Y | Scroll the screen one line backward |
| zt | Scroll the screen to place the cursor at the 1st non-blank line |
| zb | Scroll the screen to place the cursor at the last non-blank line |
| zz | Scroll the screen to place the cursor at the 1st non-blank line |

# Common Operations 4
*Copy / Paste / Delete*

## Yank (copy) <y>

| | |
|---|---|
| y[num]l | Yank [num] chars before cursor |
| y[num]h | Yank [num] chars after cursor |
| yy | Yank this line |
| [num]yy | Yank [num] lines from cursor |

## Paste <p>

| | |
|---|---|
| p | Paste after cursor |
| P | Paste before cursor |
| "[num]p | Paste the [num]-th most recent contents after cursor |

# Common Operations 4 (cont'd)

*Copy / Paste / Delete*

Delete <d><x>

◦ the deleted contents are yanked and can be pasted later

| | |
|---|---|
| x / Del | Delete chars after cursor |
| X / BackSpace | Delete chars before cursor |
| d[num]l / [num]X | Delete [num] chars before cursor |
| d[num]h / [num]x | Delete [num] chars after cursor |
| dd | Delete this line |
| [num]dd | Delete [num] lines from cursor |

# Common Operations 5

*Undo / Redo / Search*

## Undo / Redo

| | |
|---|---|
| u | Undo |
| Ctrl + r | Redo |

## Search

| | |
|---|---|
| /[RegExp] | Search for pattern in a file |
| n | Next occurrence of the searched pattern |
| N | Last occurrence of the searched pattern |

# References

Vim Introduction and Tutorial

- https://blog.interlinked.org/tutorials/vim_tutorial.html

OpenViM Interactive Tutorial

- http://www.openvim.com/