SOFTENGER
Strive to Excel

# The vi editor

# Text Editor

- A text editor is a program that can be used to create and modify text files.
- One of the most popular editors on Unix systems is vi.
- Some of the other editors are ed , pico , emacs .

# Vi

Creator of vi :

Bill Joy

Some features of vi :

- Syntax highlighting
- Brace matching
- Sophisticated text manipulation/movement
- Scriptable

# Starting vi

Open a file with vi. Type: vi myfile.txt

- If myfile.txt does not exist, a screen will appear with just a cursor at the top followed by tildes (~) in the first column.
- If myfile.txt does exist, the first few line of the file will appear.
- The status line at the bottom of your screen shows error messages and provides information and feedback, including the name of the file.

# vi Modes

## Command Mode

- Command mode is the mode you are in when you start (default mode)

- Command mode is the mode in which commands are given to move around in the file, to make changes, and to leave the file

- Commands are case sensitive: j not the same as J

- Most commands do not appear on the screen as you type them. Some commands will appear on the last line: : / ?

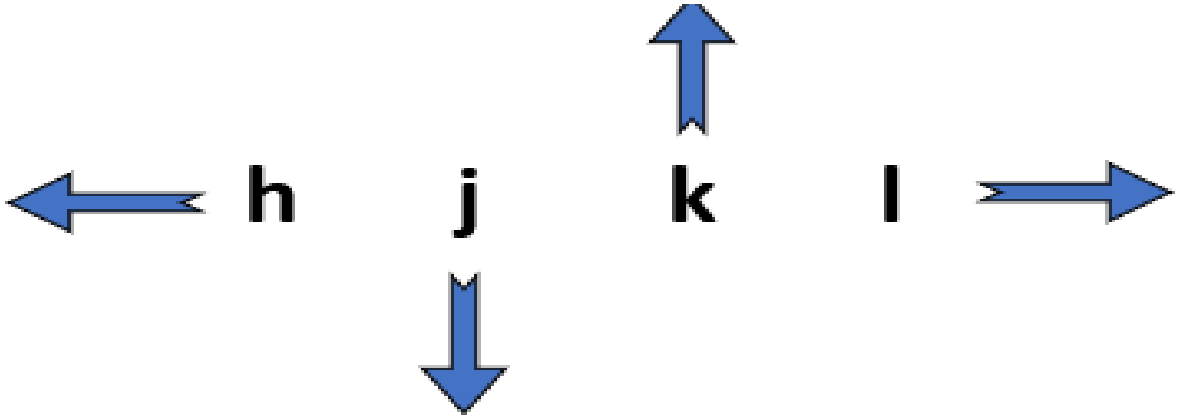
# Insert (or Text) Mode

- The mode in which text is created. (You must press <Return> at the end of each line unless you've set wrap margin.)
- There is more than one way to get into insert mode but only one way to leave: return to command mode by pressing <Esc>

# Basic Cursor Movement

From Command Mode

| | | | |
|---|---|---|---|
| k | Up one line | j | Down one line |
| h | Left one character | l | Right one character (or use <Spacebar>) |
| w | Right one word | b | Left one word |



# Entering, Deleting, and Changing Text

## Command Mode

| | |
|---|---|
| i | Enter text entry mode |
| x | Delete a character |
| dd | Delete a line |
| r | Replace a character |
| R | Overwrite text, press <Esc> to end |

# Exiting vi

- To exit you must be in command mode-press <Esc> if you are not in command mode

- You must press <Return> after commands that begin with a : (colon)

- From Command Mode

| | |
|---|---|
| ZZ | Write (if there were changes), then quit |
| :wq | Write, then quit |
| :q | Quit (will only work if file has not been changed) |
| :q! | Quit without saving changes to file |

# More On Cursor Movement

From Command Mode

| | |
|---|---|
| **e** | Move to end of current word |
| **$** | Move to end of current line |
| **^** | Move to beginning of current line |
| **+** | Move to beginning of next line |
| **-** | Move to beginning of previous line |
| **G** | Go to last line of the file |
| :n | Go to line with this number (:10 goes to line 10) |

# More On Cursor Movement

| | |
|---|---|
| **<Ctrl>d** | Scroll down one-half screen |
| **<Ctrl>u** | Scroll up one-half screen |
| **<Ctrl>f** | Scroll forward one full screen |
| **<Ctrl>b** | Scroll backward one full screen |

# More On Cursor Movement

| | |
|---|---|
| **)** | Move to the next sentence |
| **(** | Move to the previous sentence |
| **}** | Move to the next paragraph |
| **{** | Move to the previous paragraph |
| **H** | Move to the top line of the screen |
| **M** | Move to the middle line of the screen |
| **L** | Move to the last line of the screen |
| **%** | Move to matching bracket:  ( { [ ] } ) |

# Entering Text Mode

From Command Mode

| | |
|---|---|
| **i** | Insert text before current character |
| **a** | Append text after current character |
| **I** | Begin text insertion at the beginning of a line |
| **A** | Append text at end of a line |
| **o** | Open a new line below current line |
| **O** | Open a new line above current line |

# Commands and Objects

| Format | Example |
|---|---|
| operator number object | **c2w** |
| number operator object | **2cw** |

## Operators

| | |
|---|---|
| **c** | change |
| **d** | delete |
| **y** | yank |

# Commands and Objects

## Objects and Locations

| | |
|---|---|
| **w** | one word forward |
| **b** | one word backward |
| **e** | end of word |
| **^, $** | beginning of line, end of line |
| **/pattern/** | forward to pattern |

# Replacing and Changing Text

From Command Mode

**r** Replace only the character under the cursor. (Note: using r you remain in command mode.)

**R** Beginning with the character under the cursor, replace as many characters on this line as you want. (You are in overtype mode until you press <Esc>

**cw** Beginning with the character under the cursor, change a word to whatever you type. (You are in insert mode until you press <Esc>)

**c$** Beginning with the character under the cursor,

**C** change a line to whatever you type. (You are in insert mode until you press <Esc>)

# Deleting Text

From Command Mode

| | |
|---|---|
| **x** | Delete a character |
| **dw** | Delete an alphabetic word and the following space (6dw deletes six words) |
| **dW** | Delete a blank-delimited word and the following space |
| **dd** | Delete a line (6dd deletes six lines) |
| **d$** | Delete all characters to the end of the line. |
| **D** | |
| **d}** | Delete all characters to the end of the paragraph. |
| **:5,30d** | Delete lines 5 through 30 |

# Copying and Pasting Text

From Command Mode

| | |
|---|---|
| **yy** | Copy (yank) the current line |
| **6yy** | Copy (yank) six lines, beginning with the current line |
| **yw** | Copy the current word |
| **p** | Put the text after the cursor position |
| **P** | Put the text before the cursor position |

# Copying and Pasting Text

Copied text goes into a temporary buffer that is replaced each time you copy (or delete) more text. Only the current contents of the temporary buffer can be put back into your file. As a result, when you use copy (y), use the put (p) command immediately.

A yank and put procedure using colon commands:

1. **:5,10y** Copy lines 5-10
2. Move cursor
3. **:put** Put after cursor

# Other Useful Commands

SOFTENGER
Strive to Excel

From Command Mode

| | |
|---|---|
| . | Repeat last command |
| n. | Repeat last command n number of times |
| J | Join next line to current line |
| u | Undo last single change |
| ~ | Change letter's case (capital to lower and vice versa) |

# Copying, Deleting, or Moving Text Using Line

These commands start with a colon (:) and end with a **<Return>** or **<Enter>**

**<Ctrl>g** shows the line number of the current line

The basic form of colon commands is

**:beginning_line, ending_line command destination**

where destination is the line after which you want the text placed.

From Command Mode

**:5,10 co 105** Copy lines 5-10 to the line after 105

**:5,20 m $** Move lines 5-20 to end of file

**:7,300 d** Delete lines 7-300 (to buffer)

# Searching for Text

From Command Mode

| | |
|---|---|
| /text | Search forward (down) for text (text can include spaces and characters with special meanings.) |
| **?** | text   Search backward (up) for text |
| **n** | Repeat last search in the same direction |
| **N** | Repeat last search in the opposite direction |
| **f**char | Search forward for a charcter on current line |
| **F**char | Search backward for a character on current line |
| **;** | Repeat last character search in the same direction |
| **%** | Find matching ( ), { }, or [ ] |

# Substitutions

The simplest way to do substitutions over a range of lines, or throughout the file, is to use the **s** colon command.

:n1,n2**s/**old**/**new**/gc**

Where ,

n1 is the beginning line

n2 is the ending line number

**s** means to substitute text matching the pattern (old) with text specified by (new)

**g** (global) is optional. If you do not use

**g**, the editor substitutes only the first occurrence on the indicated lines.

# Substitutions

From Command Mode

**:%s/old/new/g** Substitutes old with new throughout the file

**:.,$s/old/new/g** Substitutes old with new from the current cursor position to the end of the file

**:^,.s/old/new/g** Substitutes old with new from the beginning of the file to the current cursor position

**:&** Repeats the last substitute (:s) command

# More About Options

From Command Mode-within vi for the current file only

| | |
|---|---|
| **:set all** | Display all options |
| **:set** | Display current settings of options |
| **:set nooption** | Unset option |
| **:set ai** | Set Auto Indentation during text entry |
| **:set ic** | Set Ignore Case during searches |
| **:set nonu** | Show line Numbers |
| **:set nu** | Show line Numbers |
| **:set sm** | Show Matching ( or { when ) or } is entered |

# Customizing vi Sessions

Options can be set in following  ways:

1. During a vi session

```
:set nu
```

2. In a **.vimrc** file in your home directory.

*Sample contents of a .vimrc file*

```
set nu
set ai
```

# Creating a .vimrc File

1. At the system prompt, type: **vi .vimrc**

2. Type the following commands, each on a separate line:

   **set ai**

   **set ic**

   **set nu**

   Do not leave blank lines at the beginning or end of the **.vimrc** file.

3. When you are finished, type: **<Esc> ZZ**

# Issuing Shell Commands From vi

- You can issue a single shell command while in the vi editor.
- For example, to list the files in your directory (ls), follow these steps:
- From Command Mode

**:w** Write changes to your file (just in case).

**:!ls** List contents of your current directory on the screen.

Press <Return> to return to vi.

# Issuing Shell Commands From vi

You can issue many shell commands by temporarily leaving the vi editor.

From Command Mode

**:w** Write changes to your file.

**:sh** Return to the shell to enter a number of commands without leaving vi.

Press <Control>d to return to vi editing.