

Things You Didn't Know You Needed

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You May Know These Keyboard Shortcuts in Bash, Zsh...

- **Up/down arrows** go up/down the list of previous commands
- **Left/right arrows** go left/right within a line for editing
- **Tab key** autocompletes a file or directory name
- **!!** repeats the previous command
 - **!\$** repeats the final word or string from the previous command
 - **!nnn** repeats command number nnn
 - **!m** repeats the last command beginning with m
- **history <N>**
 - display a list of the last N commands that have been executed in the terminal



Many Readline (Emacs) Shortcuts Also Work in the Shell!

- `ctrl-p/ctrl-n` recall the previous/next command in history list
- `ctrl-r/ctrl-s` reverse/forward search of history (can be repeated)

- `ctrl-f/ctrl-b` go forward/backward one character
- `esc-f/esc-b` go forward/backward one word
- `ctrl-a/ctrl-e` go to beginning/end of the line

- `ctrl-h/ctrl-d` delete the character before/after the cursor
- `ctrl-w/esc-d` kill (cut) from cursor to beginning/end of the word
- `ctrl-k` kill (cut) from cursor to the end of the line, save in kill ring
- `ctrl-y` yank (paste) the contents of the kill ring into the current line
- `ctrl-_` undo previous edit



Additional Control Sequences to Manage Processes

- `ctrl-c` interrupt the running program
- `ctrl-d` send an EOF (end of file) to close the terminal
- `ctrl-z` suspend the currently running program
 - `bg` put the suspended process in the background; same effect as `command &`
 - `fg` put the background process in the foreground
 - `fg %1` put background process 1 in foreground; view background list with `jobs`
- `ctrl-s` freeze the screen, stop the display
- `ctrl-q` unfreeze the screen, allow the display to continue



Hidden or “Dot” Files and Directories

- `ls -a`
 - list all files and directories, including the hidden ones that begin with a dot
- Some “dot” files and directories in `$HOME` (or `~`) worth knowing about...
 - File of commands to run when you log in: `~/.profile`, `~/.zprofile`
 - File of commands to run when you start a non-login shell: `~/.bashrc`, `~/.zshrc`
 - Directory containing ssh-related files, including keys: `~/.ssh`
- Examples of important files in `~/.ssh`
 - Public keys allowing logins with a matching private key: `authorized_keys`
 - Default RSA private key to be used for logging in elsewhere: `id_rsa`
 - Run `chmod 600` on these files so they are secure, plus: `chmod 700 ~/.ssh`
 - Why `chmod 700`? Can't `ls ~/.ssh` unless you have execute permissions on it



Example of .ssh/config with ssh-agent

```
% cat .ssh/config
[...]  
Host *.t2.ucsd.edu  
    User slantz  
    ForwardAgent yes  
    AddKeysToAgent yes  
    UseKeychain yes  
[...]  
% cat .zprofile  
ssh-add /Users/slantz/.ssh/id_rsa 2> /dev/null  
[...]
```

