

## Kubuntu Quick Tour

### 1. Explore desktop

- a. Right click on screen to add widgets – clock, notes, Wallpaper, ...
- b. Click on cashew, lower right, to get that option plus more stuff
- c. Click on K button, lower left, to bring up application launcher
- d. Look at favorites, applications, Computer
  - i. There are a lot of things you won't find easily here
- e. Right click on K button and select "switch to classic menu"
- f. Things are now easier to find
  - i. On system menu right click on Konsole and pin to task bar. That gives you access to the shell command line. You'll spend a lot of time here.
  - ii. On system menu right click on Dolphin and pin to task bar. That gives you access to the file manager. In Dolphin you can show menu bar with ctrl-m.
  - iii. On utilities menu right click on Kate. That gives you access to a decent text and program editor.
  - iv. On settings menu select System Settings. This is analogous to the Windows Control Panel.
- g. Open Konsole window by clicking on the Konsole icon on the task bar
  - i. Many Linux users like Vim, one of the text editors Unix and Linux provide.
  - ii. Type Vim – you probably will get a message that it isn't installed, so type: "apt-get install vim". That results in installing the Vim editor from the Kubuntu package store.
  - iii. Type VimTutor to get a good walk-thru of its operations.
- h. If you haven't yet installed the gcc toolchain, do so now:
  - i. `sudo apt-get install build-essential`
  - ii. That gives you gcc 4.9, with the latest additions to g++ to support C++11.
- i. If you haven't installed NetBeans yet, do so now:
  - i. For NetBeans you first have to install the Java jdk. For that google on jdk and select Java SE Development Kit 8 and download your flavor, e.g., Linux x86 or Linux x64. That will give you an ark (Linux compressed file manager) that you can expand wherever you want. There doesn't seem to be a "standard" place, so I put in Home>Documents. (We'll talk about that in class).
  - ii. Now google on NetBeans and download the version you want. I selected IDE 8.0.2 with the C/C++ option. You can select all and get a lot more but you may run out of room in your VM.
  - iii. That gives you an install script which you have to make executable and run. You can do both of those things with dolphin, the Kubuntu file manager.
- j. If you haven't installed Eclipse yet, you can do so now (I prefer NetBeans):
  - i. Type "apt-get install eclipse-cdt"
  - ii. When that finishes type "apt-get install g++"

- iii. I've found eclipse awkward to configure. Also, the version you get from the repositories is out of date, e.g., version 3.8 vs. 4.4.1 from the eclipse website.
  - iv. If you download from the website you get the latest, but I couldn't find an install script, so you have to do lots of manual configuring, and that is a PAIN.
  - v. The upshot is that I will be using NetBeans in class.
2. Now you're ready to explore programming on the Linux platform.
    - a. Right click on the K button (lower left) and select Development and right click on NetBeans and pin to the task bar.
    - b. We'll look at that in the next class.
  3. Now Let's Explore using Linux:
    - a. In your Konsole window type man man. Man stands for manual and gives you documentation on virtually all the available commands and utility functions available in kubuntu.
      - i. Notice that Man pages are grouped into:
        1. Executables or scripts
        2. System calls
        3. Library calls
        4. Special files
        5. File formats and conventions
        6. Games
        7. System administration commands
        8. Kernel routines
      - ii. Scroll down several pages to find Options and Main modes of operation. Look particularly at the options:  
-f = whatis, -k = apropos, -w = whereis, -a = all, -u = update
      - iii. **Whatis:** if you want to know a little bit about a command use whatis. Type "whatis ls".
      - iv. **Apropos:** if you don't know the command name use apropos with a keyword. If you type "apropos directory" you will get about two screenfuls of command summaries, including the directory listing command ls.
      - v. **Whereis:** if you want to know where something is stored use whereis. Type "whereis ls".
      - vi. **man -a** intro gives you an abbreviated introduction to the Linux commands.

#### 4. Kubuntu Commands

- a. Kubuntu defined commands and scripts

To get an idea of what commands are available open Dolphin and look at Root>Bin. All of the executable images (gear icon) are commands immediately accessible to you since this folder is on every user's path. If you enable the File menu (ctrl-m) you can use the View > sort by > type selection to show all the executables at the top of the screen and all the scripts at the bottom.

b. Your own scripts

If you create a bin folder in your home folder, you will find that is on your path<sup>1</sup>, so any scripts or executable images you put there will run when you invoke them from the Konsole window.

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<sup>1</sup> Look at ~/.profile to see how things are added to your path. All files that start with “.” are hidden. You can get Dolphin to show those to you by using the menu, e.g., View > show hidden files. If you don't see the menubar, simply type ctrl-m.