# Running DUALI on PCs (BRB 4<sup>th</sup> Floor Lab) Abel or Hall & Taylor model in Duali

## **Login Review:**

- (1) Press <Ctrl>+<Alt>+<Del> to bring up login prompt
- (2) Type in your UT EID and password
- (3) Select 'Austin' as the network (if the option appears)

### Ouick review on how to download files needed for the lab

- (1) Open a browser such as **Internet Explorer** or **Mozilla Firefox**.
- (2) Go to the class website at <a href="http://laits.utexas.edu/compeco/Courses/index392.html">http://laits.utexas.edu/compeco/Courses/index392.html</a>
- (3) Find the lab of interest (organized by date) in the program archive table on the website. The third column contains the necessary Duali files, and have file extension ".dui"
- (4) Download the files in the code column by right-clicking on the file name and choosing "Save Link As..." (Firefox) or "Save Target As..." (Internet Explorer). Left-clicking on the code links will open the text in the browser, but will not download the file. Make sure to note where you saved the file (e.g. Desktop, My Documents, etc.).

## **Running DUALI on PCs**

- (1) To open **Duali**, go to the **Start Menu** → **Programs** and choose **Duali**
- (2) To open the ABEL model: File → Examples → By Author → Abel → Two Controls → Deterministic

To open the HALL AND TAYLOR model: File  $\rightarrow$  Open...  $\rightarrow$  navigate to the file downloaded from the website (e.g. ht-01.dui)

## **Ending a Session**

- (1) Click on the <START> button on the bottom leftmost portion of the screen
- (2) Click "Logout"
- (3) NOTE: be sure to remove any CDs before logging out, and be sure to take any removable media (e.g. thumb drives) with you.

### **Very Important Notes**

(1) Unlike the other applications you have used in class, the Duali application is NOT commercial software. Rather, it is academic software that runs under Microsoft Windows. Access to the Duali application is available in the 4<sup>th</sup> floor computer lab in the BRB. The software is also available for download from the web, as well as from CDs obtainably directly from Dr. Kendrick.

More information on the Duali software, including download instructions, can be found at: <a href="http://laits.utexas.edu/compeco/duali.htm">http://laits.utexas.edu/compeco/duali.htm</a>

For the User's Guide, please go to

http://laits.utexas.edu/compeco/Duali users guide 99.pdf

(2) For an exercise on the Abel model, you can perform a simple set of policy simulations—change the value of the desired paths for a control variable (Money stock or Government spending) and simulate the changes in the optimal control paths. With the Hall and Taylor model (ht-01.dui), since it has a dynamic simulation capacity, you can simulate the autonomous response from an initial given condition: for example, once can change the X0 vector by altering the first element from 0.0 to -0.04. You can also change weighting matricies (W or Lambda) to find the optimal control paths to different penalty schemes.