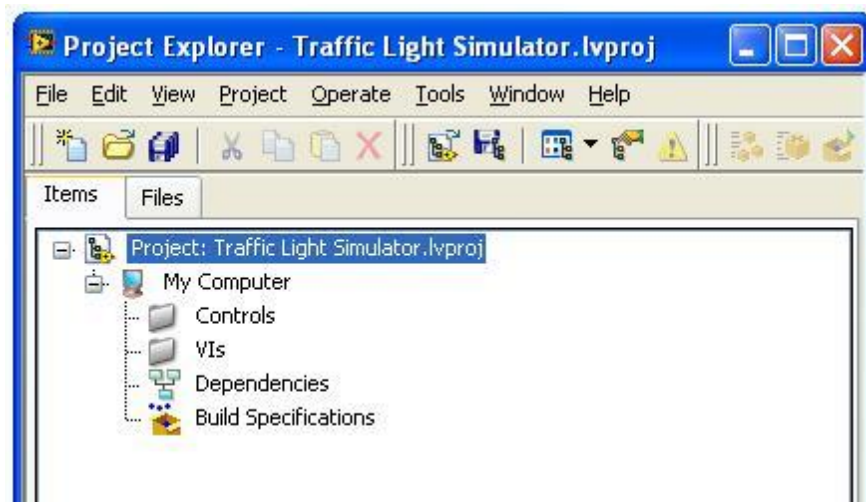


**Post-Grad
LabVIEW Course
Exercise 10
G Boorman**

Exercise 10 – Starting a Project and adding Files

In this exercise you start a Labview **Project** containing VIs and Controls which are used to run a Traffic Light simulator. This Project will get more complex, and more realistic, as you progress with subsequent exercises.

1. Create a folder in your home directory called Traffic Light Simulator. Add two sub-folder: one named Controls; one named VIs.
2. In Labview, create an *Empty Project* from the start screen (or do File>>New Project from an existing VI). Highlight *Project: Untitled Project 1* and save, using the name Traffic Light Simulator, in the Traffic Light Simulator folder.
3. Drag the folders VIs and Controls from an Explorer window into *My Computer* in the Project Explorer window. The project should look like the following:

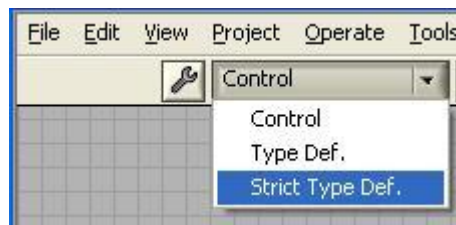


4. Right-click the Controls folder and select New>>Control. Place a Cluster on the control panel and name it Traffic Light Display. Place a Boolean Round LED within the cluster and name it RED. In the Round LED's Properties>> Appearance panel, make the *On* colour a Red hue, and the *Off* colour grey. Close the Properties panel. Expand the size of the LED slightly.

5. Make two copies of the 'RED' LED within the cluster. Rename the first copy AMBER and the second one GREEN. Change the *On* colour of each to reflect their names. Right-click each LED in turn and hide its *label*. Adjust the cluster box and move the LEDs to make it tidy; It should look like the following:



6. Make the control a *Strict Type Def* by selecting from the menu:



7. *Optional*: Change the Icon to look like a Traffic Light.
8. Save the Control in the Controls directory as Traffic Light Display.ctl. It will now be displayed in the Project window under the Controls folder.
9. Make another Control in the CTL directory – this time place an *Enum* on the control panel. Name it Traffic Light States.
10. Right-click and do *Edit Items...* Type *Red* as the first item, *RedAmber* as the second, then *Green* and finally *Amber*. Do *OK* when finished. Use the increment/decrement buttons to check the Enum has the correct states.
11. *Optional*. Change the Icon to something meaningful.
12. Make this Control a *Type Def* and save it in the Controls directory with the name Traffic Light States.ctl.
13. Save the Project and then close it. The Project can be re-opened by double-clicking on the Project in Windows Explorer.

End of Exercise