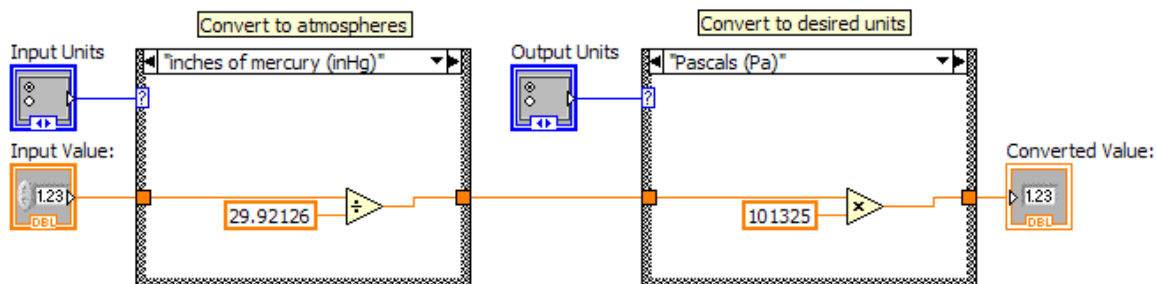# Worked Example: Pressure Units Converter

In this example, Case Structures are used to implement a converter for several common units of pressure. It also introduces the Radio Buttons control, style techniques, code documentation, and continues with the concepts of data types and properties. The following is a list of specific things to consider:

- The Radio Button control is actually a type of cluster object, which we will cover in greater detail later. At this point, just be aware that it is an ordered list, meaning that the output data from the control depends upon the order in which the individual buttons are created. If necessary, you can right-click the border and select *Reorder Controls in Cluster...* to adjust.

- The data type of the Radio Button control is enumerated, unsigned 32-bit (U32), even though it is found on the Boolean palette. The output number simply identifies which selection has been activated.

- With a right-click and *Visible Items*, turn off the Boolean text of each button, and modify the remaining label item to name the selections. That way, the case selector labels in the Case Structure will reflect the actual choices available. **Create the Radio Buttons <u>before</u> connecting the Case Structure!**

- When the Case Structure is first wired at the selector terminal, only two cases will show up at the top. You will need to add the additional cases as appropriate by right-clicking on the border.

- Make the Input Units control first, and then copy it to the Output Units control.

- Use the *Align Objects* and *Distribute Objects* toolbars to professionally organize the objects on the panel.

- Right-click the border of the Radio Buttons control and select *Autosizing>>Size to Fit* to optimize space around the control.

- Make the start-up values of the controls and indicators correct—run the program, and set the default values for the VI under the *Edit* menu.
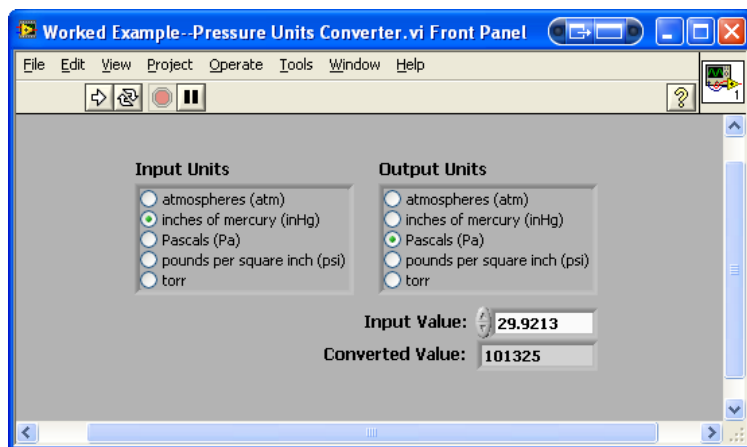
1 atm = 29.92126 inHg = 101325 Pa = 14.69595 psi = 760 torr