Worked Example: Random Number Statistics

Statistically speaking, if the random number generator function built into LabVIEW is truly random, then a large set of the numbers should always be "centered" at ½. This means that if the generated value were to be rounded to only zero or one, then exactly half of the values generated in any set should be zero, and half should be one—just like flipping a coin with heads and tails. Create a VI like the one below to test the scenario. Note the following features:

- A while loop **and** a case structure are used to control execution.
- Two shift registers are used to store count values between iterations, and each is initialized.
- A property node is used for each tank indicator to automatically re-scale the display as the total count increases.
- Note the use of comments throughout the diagram to explain portions of the code.
- Run the VI with execution highlighting to "watch" the flow.