

Kismet Tutorial-7 Switch Counter Groups (SCGs)

Overview:

Switch Counter Groups (SCGs) can be a powerful feature of your game. SCGs can keep track of almost every choice the player has made in your game. You can have hundreds of different SCGs, have them work in groups or independently. They can be used to see where a player has been in your level, how many times he has been there, and the order the player took to get there. SCGs can be used to see if quests have been completed or to force a player to go to a specific place before something else can take action, like a door opening, or an item appearing. The use of SCGs can add more realism and offer greater challenges to your players.

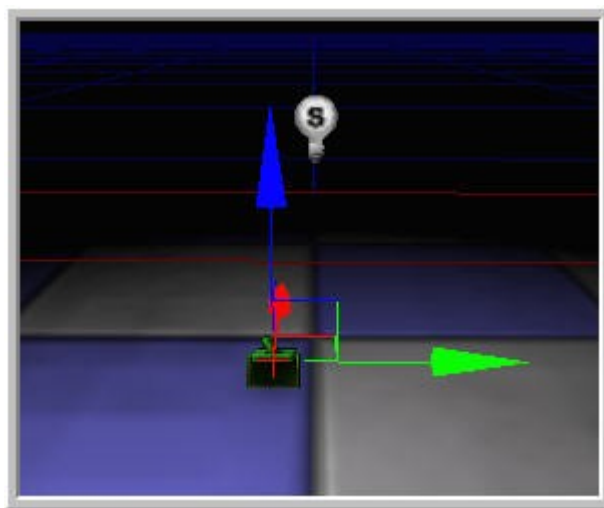
Makeup of an SCG

An SCG consists of five sequence objects:

1. A trigger set to either Use or Touch.
2. A counter to count the number of times the trigger has been used or touched.
3. An Integer Variable to hold the counter value.
4. A log sequence object to display the value of the count on your test screen.
5. A gate to deactivate the Log Sequence Object so the player cannot see the count.

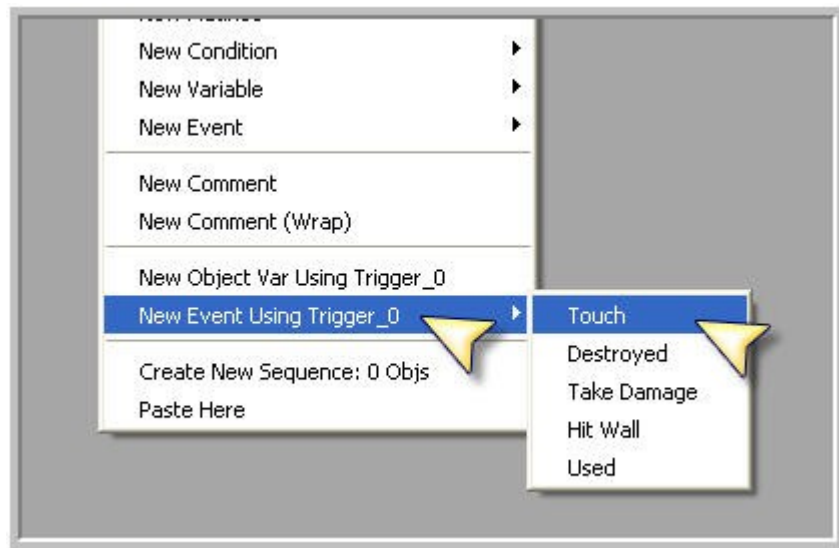
All of the above sequence objects can then be grouped together and treated as a single sequence object (called an SCG), then copied and replicated as many times as you want. You only need to change the Switch ID and the ID of the integer variable for each SCG. This tutorial will take you step-by-step to show you exactly how to do that.

1. Create a simple level and place a **Trigger** there. Remember to set the Display Property so the Trigger is not hidden. For the actual game you may want to hide all of your triggers so the player cannot see them. They still work even when hidden.



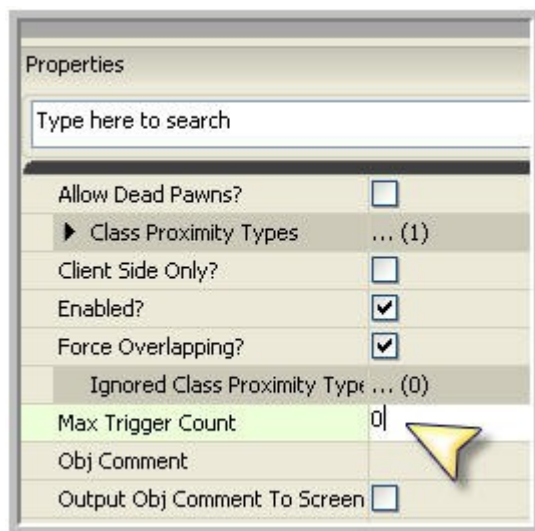
[Placing a Trigger in the level.]

2. With the Trigger still selected, get into Kismet and right-click selecting New Event Using Trigger_0 => Touch. The Touch means that the player only need to pass close to the trigger, while the Used means the player actually has to get close to the trigger, point to it and press the E key. See below:



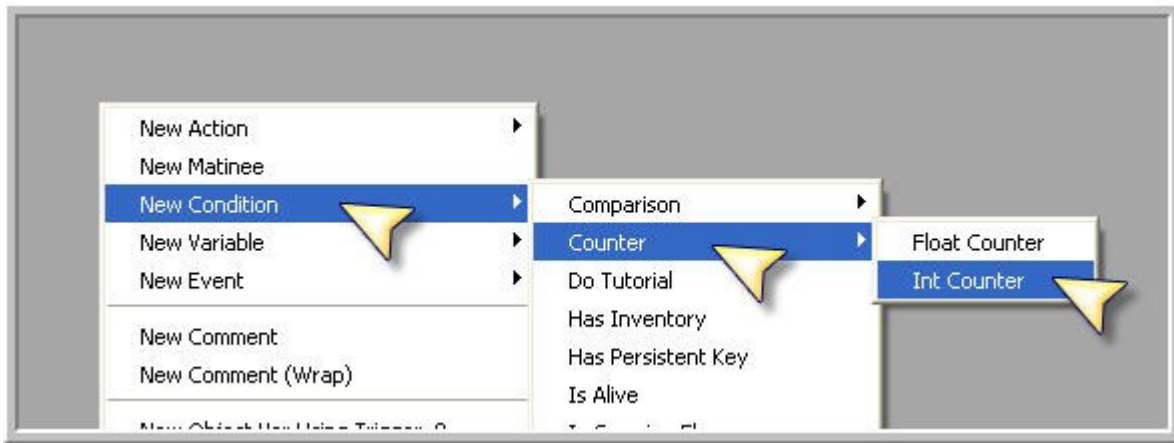
[Adding a Trigger with the Touch event.]

3. Be sure to set the trigger properties Max Trigger Count to 0. This will allow you to activate the Trigger as many times as you wish. See below:



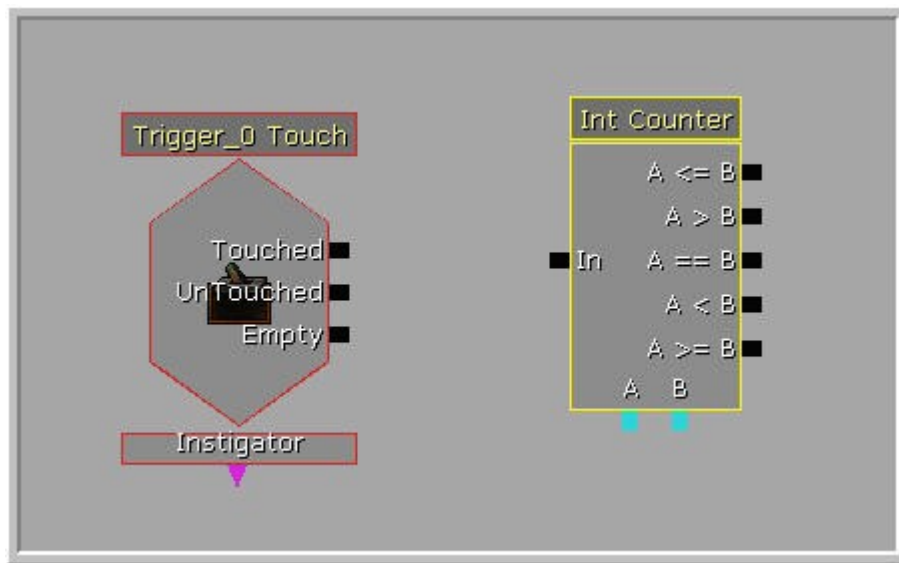
[Setting the Max Trigger Count to 0 in Kismet.]

4. Next, set a New Condition to an Int Counter as shown in the figure below:



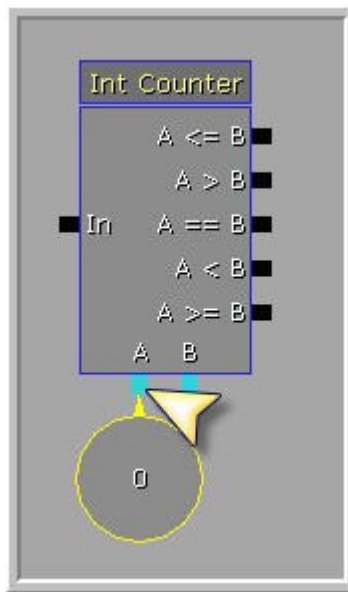
[Setting up an Int Counter in Kismet.]

5. You should now have the two sequence objects in Kismet as shown below. Note that you can move one sequence object at a time by clicking on it, then while holding down the Ctrl key and the left mouse button to place it where you wish.



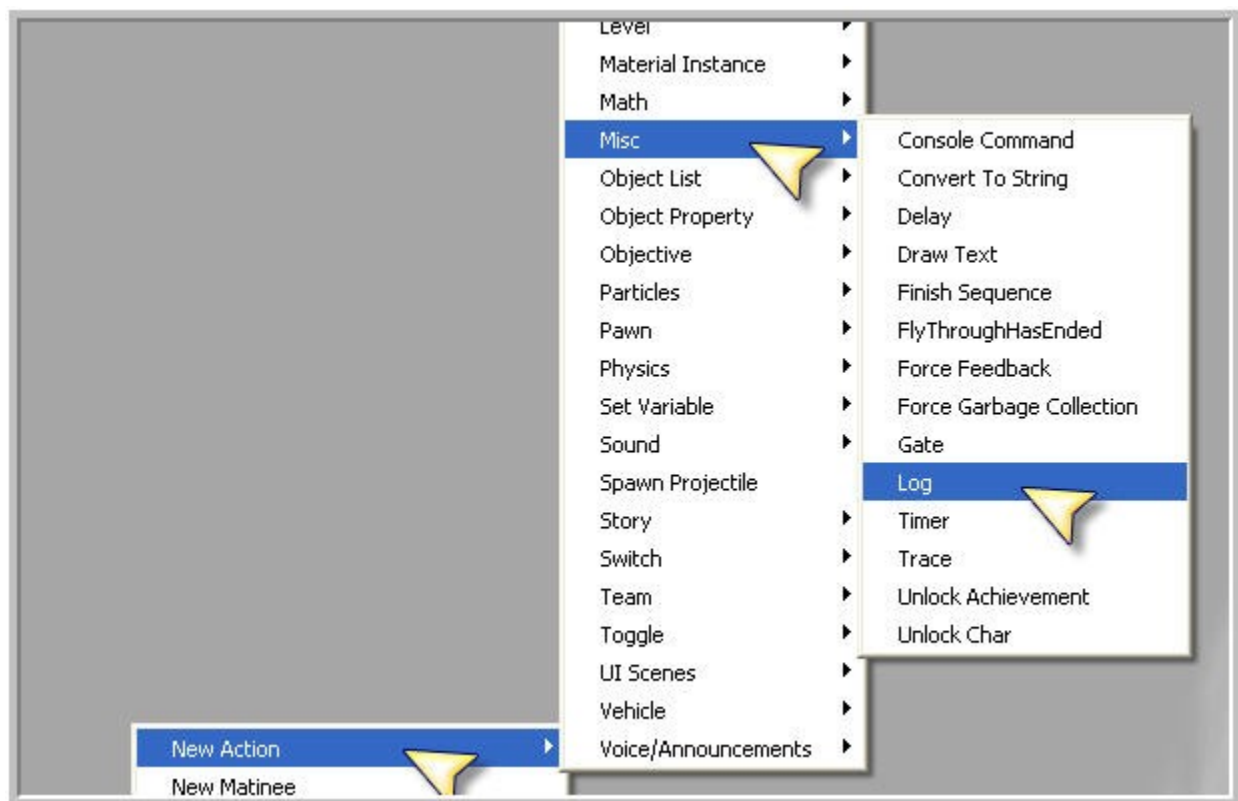
[Resulting Sequence Objects in Kismet.]

- Next, right-click on the A output of the Int Counter and select Create New Int Variable. See the figure below: This is the variable that will be used to hold the value for the number of times your trigger has been Touched.

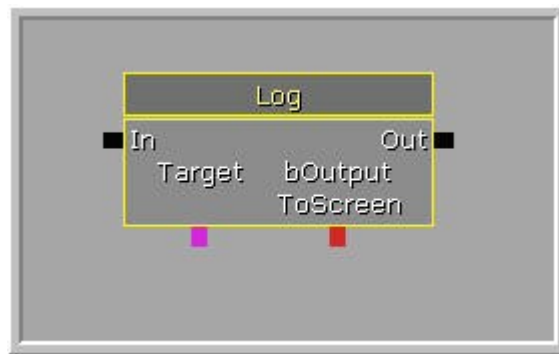


[Creating a New Int Variable.]

- Now right-click and select the Log Sequence Object. See below:

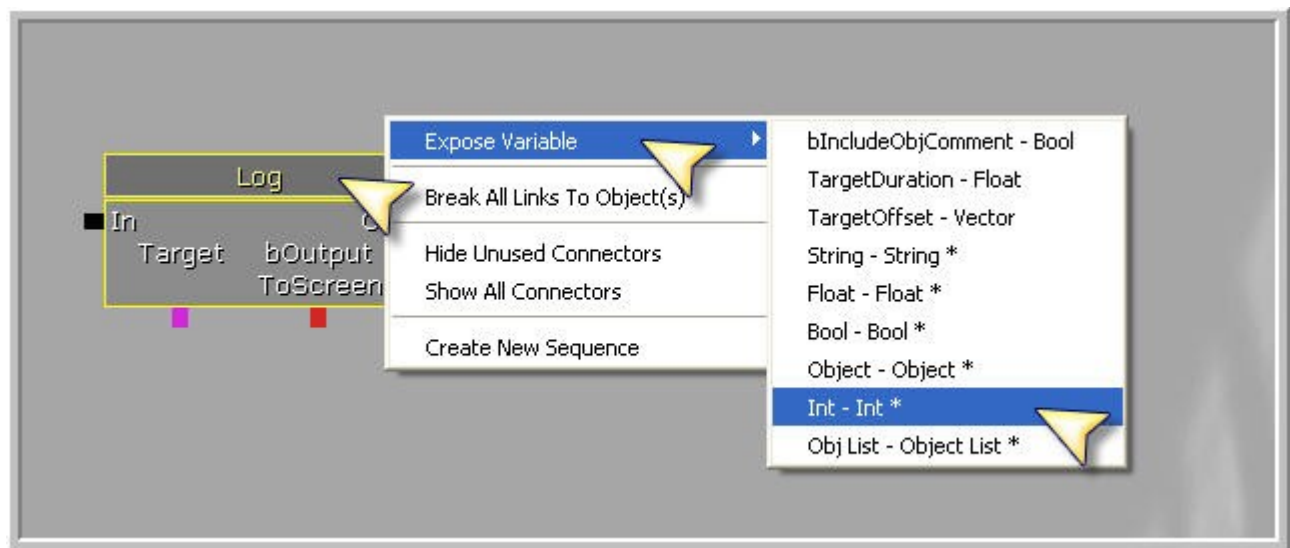


8. Your log sequence object should now look as shown below:



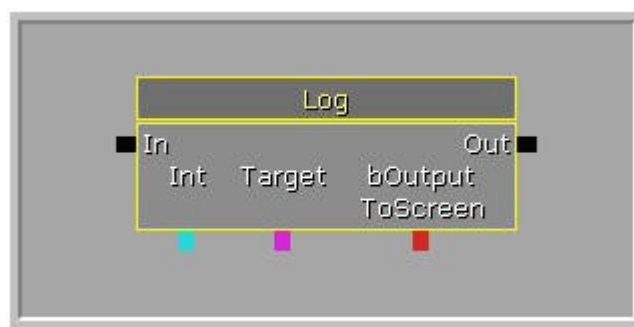
[View of your Log Sequence Object.]

9. Right-click again on the Log Sequence Object and select Expose Variable => Int-Int* as shown below:



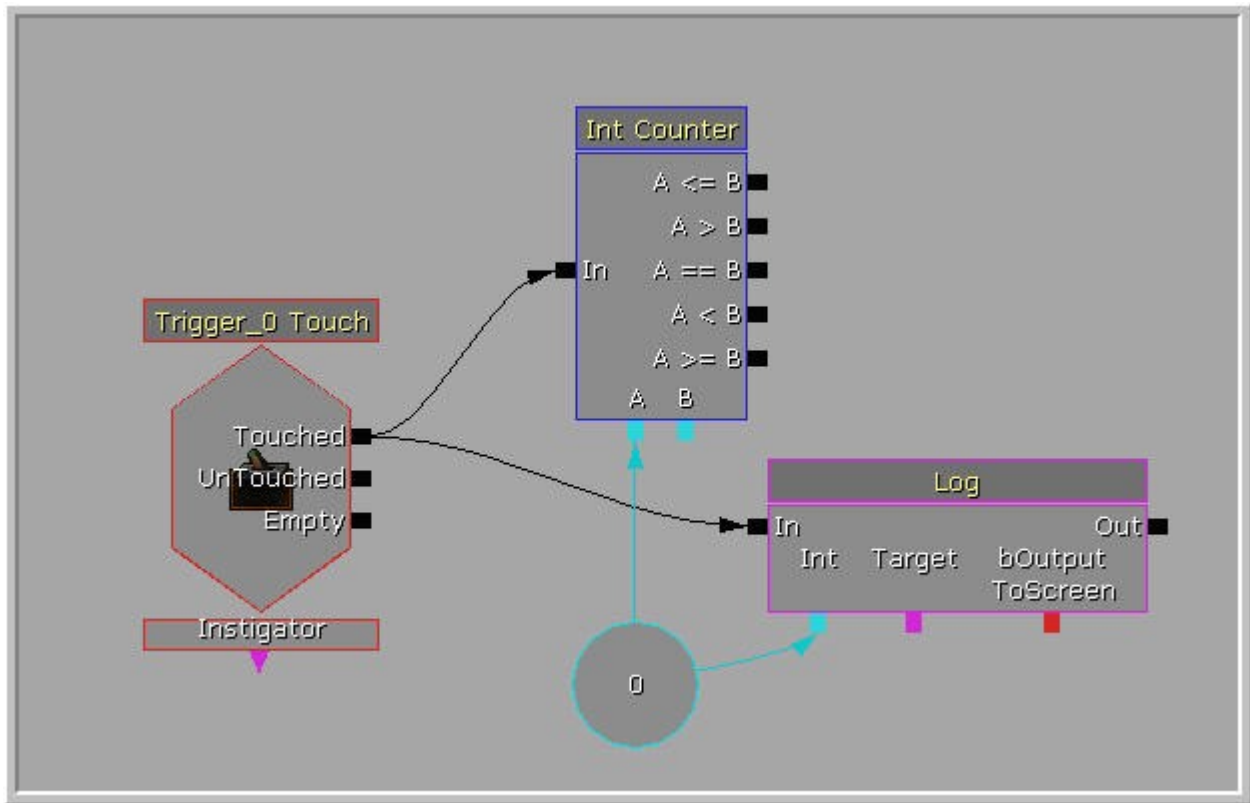
[Selecting the Int Variable expose for the Log Sequence Object.]

10. The Log Sequence Object should now look as shown below:



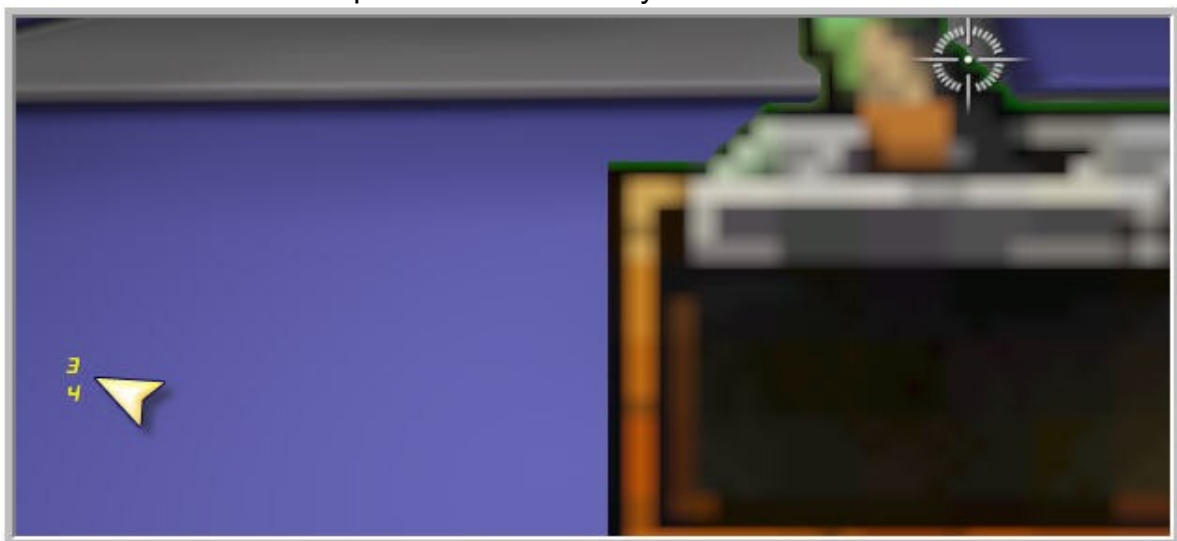
[Log Sequence Object after Int variable is exposed.]

11. Arrange your Sequence Objects and connect them together as shown below. When this is completed, your system is ready for testing.



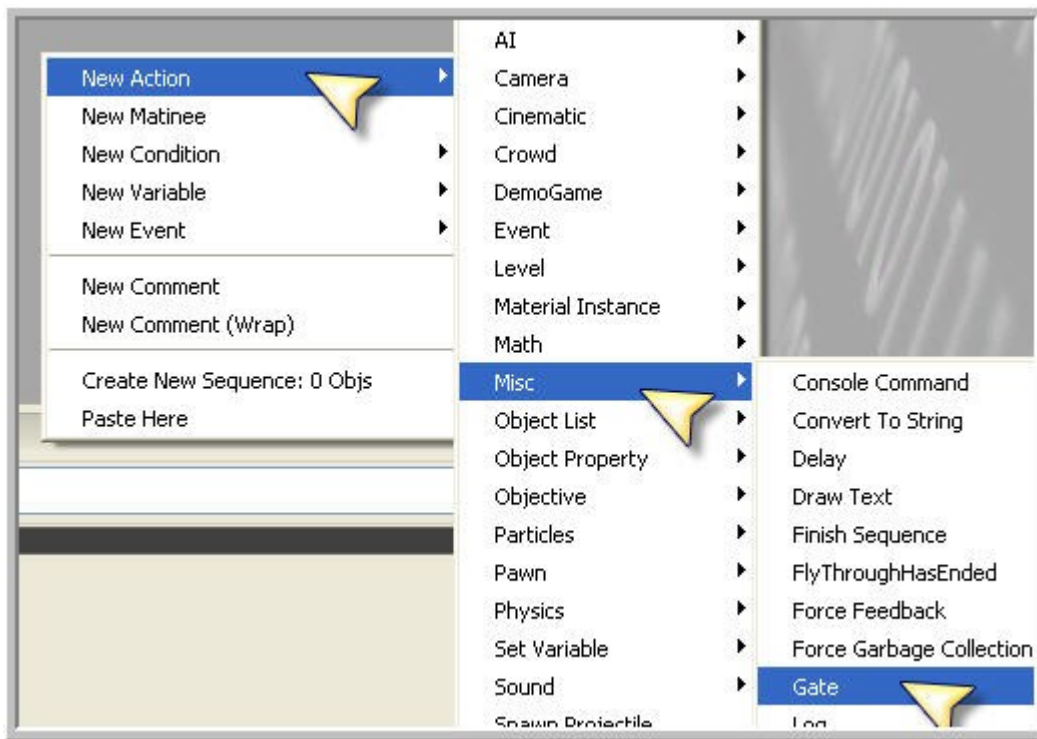
[Arranging and connecting the resulting Sequence Objects.]

12. Build your level and test it. Get close to the switch then move back then get close to it again. Each time you do, you will see a count of the number of times you touched the switch. This count is kept in the int variable you created. See below:



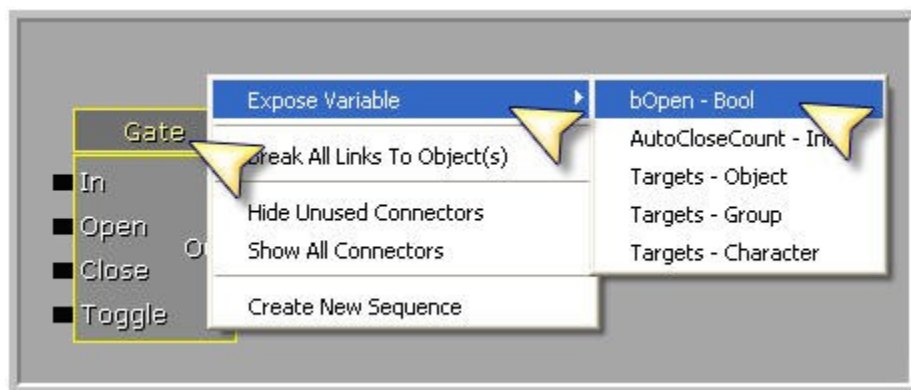
[Seeing the count of switch touches.]

13. What you have done is fine for testing purposes. However, in the actual game that will be played by others you may not want the player to see any number counts. You could go back into Kismet and simply remove the connection to the Log Sequence Object, however, if you have many, many of these SCGs this practice would be time consuming and perhaps even prone to error. One method of disabling all of your Log Sequence Object outputs is through the use of a Gate Sequence Object. See below:



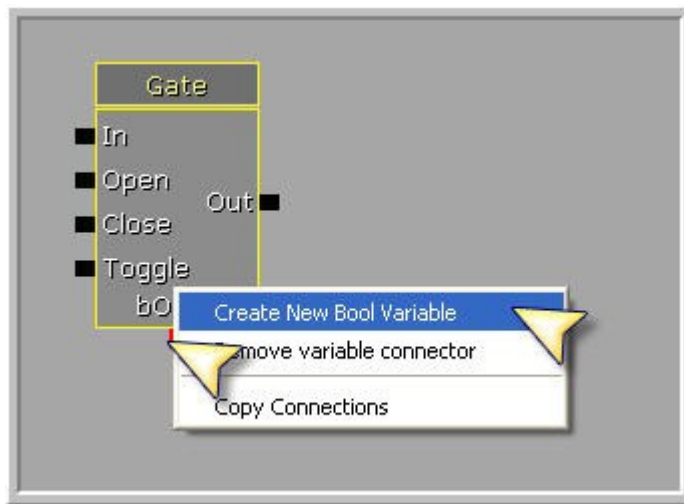
[Adding a Gate Sequence Object in Kismet.]

14. Next, right-click on the Gate Sequence Object and select bOpen – Bool as shown below:



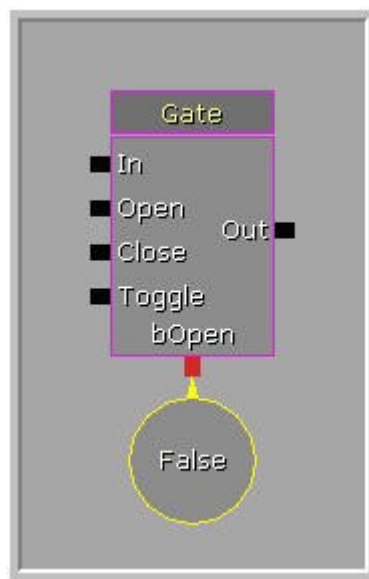
[Selecting the bOpen – Bool for the Gate Sequence Object.]

15. Next, right-click on the bOpen connector and select Create New Bool Variable as shown below:



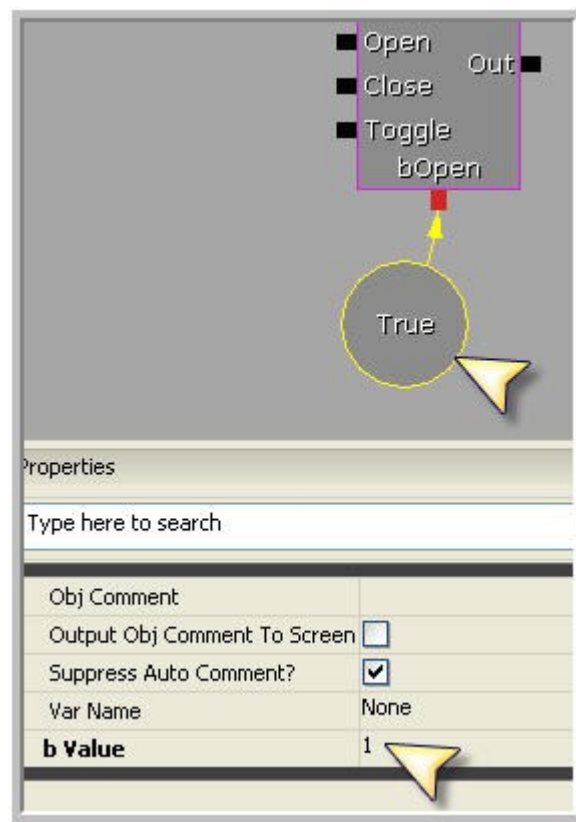
[Creating a New Bool Variable for the Gate Sequence Object.]

16. Your Gate Sequence Object will now look as shown below:



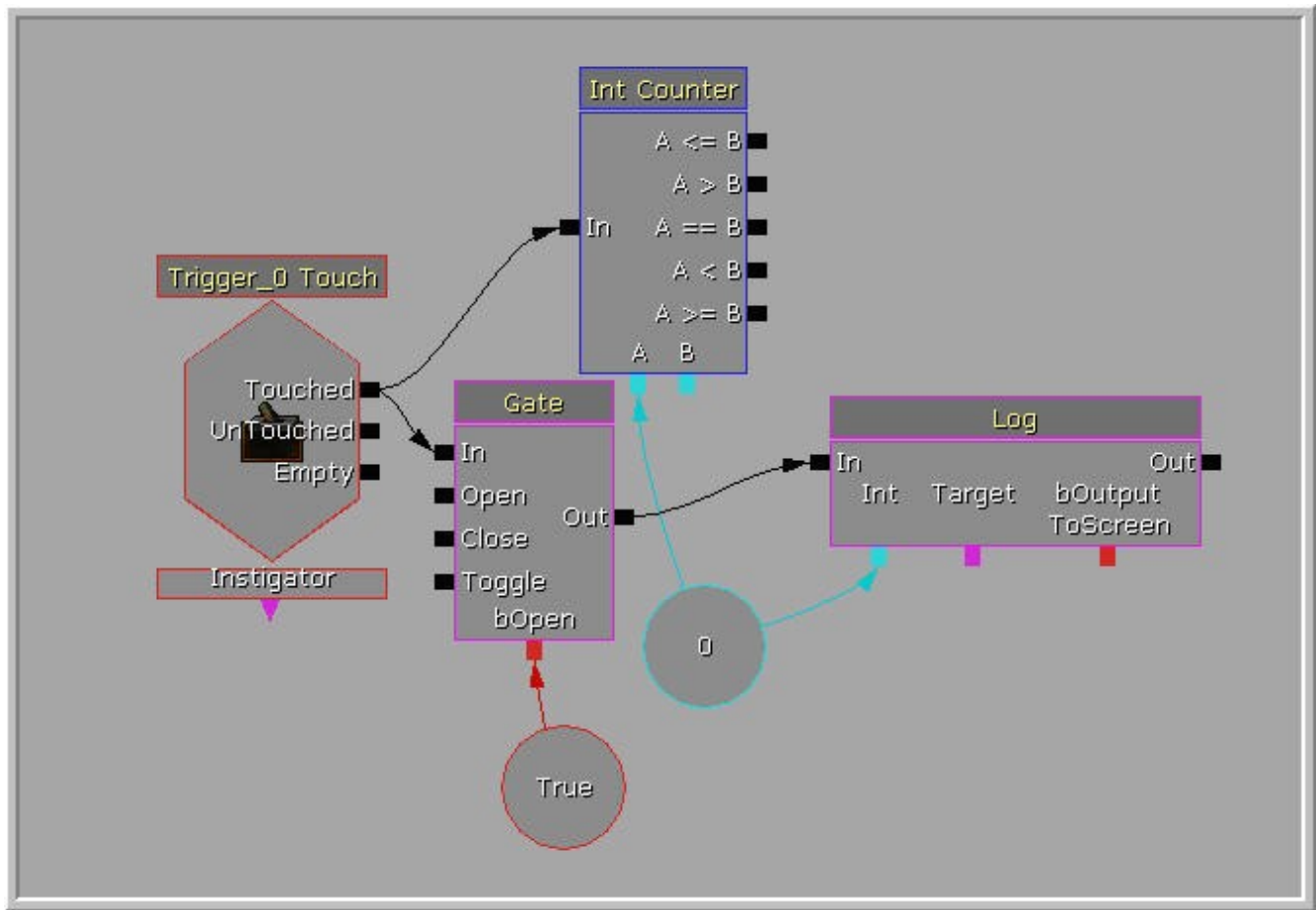
[Completed Gate Sequence Object.]

17. Note that the boolean variable is False by default. We for testing purposes, we want to set it to True. To set it to True, with the Boolean variable selected, go to its Properties menu and change the bValue from a 0 to a 1. This will now allow the gate to pass data. See below.



[Setting the bOpen to True.]

18. Moving each of the individual sequence objects, arrange them as shown below:



19. You have now created an SCG (Sequence Counter Group). In the next tutorial you will see how to take the group you have created here and simplify it using some of Kismet's powerful features.