Setting up A master Server- Part 4- Using RPCS (single messages that log what happens)

**Using RPCs** **RPCs are useful for single, self-contained messages that need to be sent, such as a character firing a gun, or a player saying something in chat.** **In Unity, RPCs are methods marked with the [RPC] attribute. This can be called by name via networkView.RPC( "methodName", … ). For example, the following script prints to the console on all machines when the space key is pressed.**

 **using UnityEngine**

**; using System.Collections;**

**public class ExampleUnityNetworkCallRPC : MonoBehavior {**

**void Update()   {**

**// important – make sure not to run if this networkView is notours**

**if( !networkView.isMine )**

**return;**

**// if space key is pressed, call RPC for everybody**

**if( Input.GetKeyDown( KeyCode.Space ) )**

**networkView.RPC( "testRPC", RPCMode.All );   }**

**[RPC]   void testRPC( NetworkMessageInfo info )**

**{     // log the IP address of the machine that called this RPC**

**Debug.Log( "Test RPC called from " + info.sender.ipAddress);   } }**

 **Also note the use of NetworkView.isMine to determine ownership of an object. All scripts will run 100 percent of the time regardless of whether your machine owns the object or not, so you have to be careful to avoid letting some logic run on**

**remote machines; for example, player input code should only run on the machine that owns the object.** **RPCs can either be sent to a number of players at once, or to a specific player. You can either pass an RPCMode to specify which group of players to receive the mes- sage, or a specific NetworkPlayer to send the message to. You can also specify any number of parameters to be passed to the RPC method.** **RPCMode includes the following entries:**

**•All (the RPC is called for everyone)**

**•AllBuffered (the RPC is called for everyone, and then buffered for when new**

**players connect, until the object is destroyed)**

**•Others (the RPC is called for everyone except the sender)**

**•OthersBuffered (the RPC is called for everyone except the sender, and then**

**buffered for when new players connect, until the object is destroyed)**

**•Server (the RPC is sent to the host machine)**

**Note** **Note that, with the exception of RPCMode.All and RPCMode.AllBuffered, a client cannot send an RPC to itself.**