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| **Test Case No.** | **Description and Expected Result** | **Support** |
| 1 | Bukkit [[2](#2)] can retrieve a list of all connected players. The test will begin by retrieving this list. Liza will attempt to log in the mock player. The list is retrieved again. The mock player is expected to be added to this list. | Yes |
| 2 | Through Bukkit [[2](#2)], a message can be sent directly to the mock player. Liza will search through the buffer and attempt to find this message. | No |
| 3 | Liza will attempt to send a command through the chat. Bukkit [[2](#2)] has a callback function which retrieves any commands that are sent along with the sender. We can assert that the command was sent correctly and by the mock player. | No |
| 4 | Liza will send a command through the chat to the server. The testing plugin will read this command, and send out a predetermined event. It will be asserted that this event was received, and that all the values match. | Yes |
| 5 | The testing plugin will also come with an additional plugin which makes dirt indestructible. Liza will attempt to destroy this block. Bukkit [[2](#2)] will assert that the dirt block still exists. Liza will attempt to disable this plugin, and destroy the block again. Bukkit [[2](#2)] will assert that the block is destroyed, and will replace it. Liza will attempt to re-enable the plugin, and destroy the block. Bukkit [[2](#2)] will once again assert that the block still exists. | No |
| 6 | Bukkit [[2](#2)] will retrieve the current location of the mock player. Liza will attempt to move the player in a specified direction or teleport to a location. The testing plugin will assert that the mock player is in the correct location. This test will be repeated multiple times for every direction. | No |
| 7 | Bukkit [[2](#2)] keeps track of the pitch and the yaw of a player. Given the player’s location along with the target point, the expected viewing angles can be calculated. Bukkit [[2](#2)] will retrieve the player’s viewing angles and compare them to the expected values. | Yes |
| 8 | Bukkit will encase the mock player in water. Then the testing plugin will assert swimming much like it does with regular movement. | No |
| 9 | Liza will attempt to send the command to sneak. Bukkit can read the player’s sneaking state. A similar process follows for sprinting. | Yes |
| 10 | Bukkit [[2](#2)] will enable “creative mode” for the mock player. This will allow the mock player to fly. Bukkit [[2](#2)] will retrieve the current location of the mock player. Liza will attempt to fly the player in a specified direction. The testing plugin will assert that the mock player is in the correct location. This test will be repeated multiple times for every direction. | No |
| 11 | Liza will attempt to place a block. The testing plugin will assert that the block exists. Liza will attempt to destroy that block. The testing plugin will assert that the block does not exist. | Yes |
| 12 | The testing plugin will spawn an entity at the mock player’s location. Liza will proceed to attack this entity. This will trigger an event, which the testing plugin will retrieve. | No |
| 13 | The testing plugin will retrieve the mock player’s inventory, and sets it so that a target item is not currently possessed by the mock player. The testing plugin will then proceed to drop that item onto the ground near the player. The mock player’s inventory is once again retrieved, and the presence of the item is asserted. | No |
| 14 | The testing plugin will give the mock player a specific item, such as a bow and arrow. Liza will attempt to use this item. Bukkit [[2](#2)] will respond by throwing an event, which the testing plugin will receive. | No |
| 15 | Bukkit [[2](#2)] will retrieve a list of entities and their location on a server. Liza will attempt to add an entity (such as a cow) at a certain location. The testing plugin will assert that the list of entities has been modified and an entity is located at the determined place. Liza will then attempt to despawn the entity, and the testing plugin will assert that the list has been modified and that there is no entity at the specific location. | Yes |
| 16 | Liza will attempt to retrieve an entity’s health and location. Bukkit [[2](#2)] will retrieve the same entity’s health and the testing plugin will assert that they are the same. | Yes |
| 17 | Liza will attempt to retrieve a list of all entities in the Minecraft [[1](#1)] world. Bukkit [[2](#2)] will retrieve the list off of the server. The two lists will be compared and asserted to have the same values. | Yes |
| 18 | Liza will attempt to retrieve a list of all entities in a predetermined radius from the mock player. Bukkit [[2](#2)] will retrieve the list of all entities and their locations, and will calculate and find those that are within the same specified radius of the mock player. The two lists will be compared and asserted to have the same values. | No |
| 19 | Liza will attempt to remove all entities within a predetermined radius from the mock player, while generating a list of removed entities. The testing plugin will retrieve the list of all entities on the server, and assert that none of the removed entities are present. | No |
| 20 | The testing plugin will give a predetermined special condition (such as being on fire) to a specified entity. Liza will attempt to retrieve this information, and the testing plugin will assert that they are the same. | Yes |
| 21 | Both Bukkit [[2](#2)] and Liza will retrieve the list of equipped items on the mock player, and run calculations to find the armor value. The two are compared. Then the mock player will change its armor configuration by removing/equipping armor. Bukkit [[2](#2)] and Liza will once again retrieve the equipped items and compare computed armor values. | No |
| 22 | The mock player will wait until hunger is partially depleted. Bukkit [[2](#2)] will retrieve the hunger value of the player, and assert that Liza’s value matches. This hunger value will be altered, either by eating food or waiting longer, and Bukkit [[2](#2)] and Liza compare values again. | No |
| 23 | Before killing any entities, the testing plugin will assert that the mock player has zero experience. Then, after killing some entities, the testing plugin will retrieve the player’s experience and assert that it matches Liza’s value. | No |
| 24 | The testing plugin will clear the mock player’s inventory. Liza will give the mock player a predetermined set of items. Bukkit [[2](#2)] will read the item values in the player’s inventory and assert that each item is present. | No |
| 25 | Liza will attempt to create a block at a given location. The testing plugin will assert that the block exists. Removal is achieved by creating an air block at a location. | Yes |
| 26 | Liza and the testing plugin will retrieve a block at a given location. The two are compared and asserted to be the same. | Yes |
| 27 | Bukkit [[2](#2)] is able to retrieve blocks that a player is facing. This value is compared to Liza’s and asserted to be the same. | Yes |
| 28 | Given a block, the value that the testing framework and Liza retrieves are compared and asserted to be the same. | Yes |
| 29 | Given a block, Liza will attempt to set some material properties. The testing plugin will retrieve the block and read its properties, and assert that they have been set. | Yes |
| 30 | Liza will attempt to set the time of day in the world. The testing plugin will assert that the time matches what was set. | Yes |
| 31 | Liza will attempt to adjust the current weather at a location. Bukkit [[2](#2)] will assert that it has been done. | Yes |