My Project

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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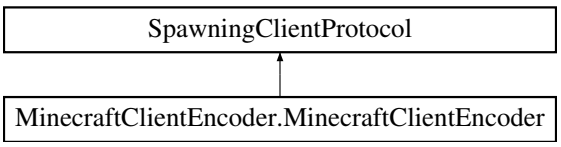
Chapter 3

Class Documentation

3.1 MinecraftClientEncoder.MinecraftClientEncoder Class Reference

Inheritance diagram for MinecraftClientEncoder.MinecraftClientEncoder:



Public Member Functions

- def **__init__**
- def update_player_full
- def get_byte_from_buff
- def get_bytes_from_buff
- def check_buff
- def encode
- def encode_inventory_action
- def encode_player_look
- def encode_player_position
- def encode_player_position_and_look
- def packet_player_position_and_look
- def update_incoming_buffer
- def check_entity
- def packet_entity_head_look
- def packet_entity_relative_move
- def packet_entity_look

Public Attributes

- **packet_done**
- **AES_Block_Len**
- **out_enc_buff**
- **in_enc_buff**
- **pos_look**
- **spawned**

3.1.1 Detailed Description

```
The MinecraftClient Encoder is a class that represents a Minecraft Client connection and performs the FTE encc
```

3.1.2 Member Function Documentation

3.1.2.1 def MinecraftClientEncoder.MinecraftClientEncoder.check_buff (*self, buff*)

```
Update the buffer if empty by reading from the queue provided
by the factory class. Send a player_look to the server to
notify that the encoded packet has finished sending.
```

3.1.2.2 def MinecraftClientEncoder.MinecraftClientEncoder.check_entity (*self, data*)

```
Checks an entity if its ID is over 20000. Should be depreciated
due to how enitity IDs are assigned.
```

3.1.2.3 def MinecraftClientEncoder.MinecraftClientEncoder.encode (*self*)

```
Encode packet bytes as minecraft movements. Currently just encodes
as creative mode inventory actions, but this can be expanded to
other movement types.
```

3.1.2.4 def MinecraftClientEncoder.MinecraftClientEncoder.encode_inventory_action (*self, slot_num*)

```
Injects a byte from the buff as the item id type (currently a subset
of all item types) and sets the given window slot <slot_num>.
Finally, it sends the packet to the minecraft proxy server.
```

3.1.2.5 def MinecraftClientEncoder.MinecraftClientEncoder.encode_player_look (*self*)

```
Sends the retrieved players look from the beginning of the game
session each time. Currently used to notify when the outgoing buffer
has finished sending.
```

3.1.2.6 def MinecraftClientEncoder.MinecraftClientEncoder.encode_player_position (*self*)

```
Encode and send original player's position from the start of the
game.
```

3.1.2.7 def MinecraftClientEncoder.MinecraftClientEncoder.encode_player_position_and_look (*self*)

```
Not currently used. Bytes can be injected in to the expected fields
for the server such as x, y, z, yaw, and pitch.
```

3.1.2.8 def MinecraftClientEncoder.MinecraftClientEncoder.get_byte_from_buff (*self, buff*)

```
Reads one byte from the queued buffer. If the buffer is empty, the
function returns 256.
```

3.1.2.9 def MinecraftClientEncoder.MinecraftClientEncoder.get_bytes_from_buff (*self, buff, num_bytes*)

```
Get <num_bytes> out of the given buffer.
```

3.1.2.10 def MinecraftClientEncoder.MinecraftClientEncoder.packet_entity_head_look (*self, buff*)

```
Extracts a byte from the head angle field of a enitity head look
network packet and appends it to the incoming buffer.
```

3.1.2.11 def MinecraftClientEncoder.MinecraftClientEncoder.packet_entity_look (*self, buff*)

```
Current delienator for knowing when an encoded packet has finished
sending from the server. Checks if look movement is from proxy or
another player by verifying entity ID. - Currently the ID is hard
coded.
```

3.1.2.12 def MinecraftClientEncoder.MinecraftClientEncoder.packet_entity_relative_move (*self, buff*)

```
Currently not used, but bytes can be encoded into entity's
positions.
```

3.1.2.13 def MinecraftClientEncoder.MinecraftClientEncoder.packet_player_position_and_look (*self, buff*)

```
Receives the inital player position from the server and store the
player's information for other turns.
```

3.1.2.14 def MinecraftClientEncoder.MinecraftClientEncoder.update_incoming_buffer (*self*)

```
When the packet from the client in the incoming buffer (server to
client) is fully reconstructed, add it to the recieving queue to
be processed.
```

3.1.2.15 def MinecraftClientEncoder.MinecraftClientEncoder.update_player_full (*self*)

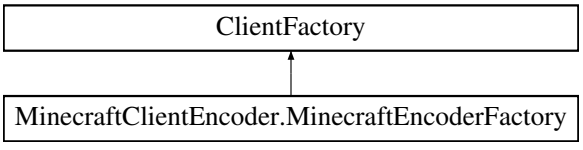
```
Sends a player's position to the server every 20 ticks (1 second).
```

The documentation for this class was generated from the following file:

- MinecraftClientEncoder.py

3.2 MinecraftClientEncoder.MinecraftEncoderFactory Class Reference

Inheritance diagram for MinecraftClientEncoder.MinecraftEncoderFactory:



Public Member Functions

- def **__init__**

Public Attributes

- **forwarding_packet_queue**
- **receiving_packet_queue**

Static Public Attributes

- **protocol** = MinecraftClientEncoder

3.2.1 Detailed Description

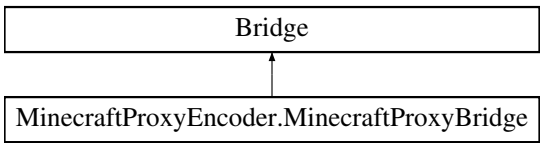
```
Factory for building Client Connections. Also serves as the interface
for the two packet queues for encoded packets being set between the
client and server of the Pluggable Transport.
```

The documentation for this class was generated from the following file:

- MinecraftClientEncoder.py

3.3 MinecraftProxyEncoder.MinecraftProxyBridge Class Reference

Inheritance diagram for MinecraftProxyEncoder.MinecraftProxyBridge:



Public Member Functions

- def **__init__**
- def **get_byte_from_buff**
- def **get_bytes_from_buff**
- def **check_buff**
- def **encode**
- def **enemy_enc_head_look**
- def **gen_rand**
- def **enemy_enc_look**
- def **spawn_mobs**
- def **update_incoming_buffer**
- def **packet_upstream_creative_inventory_action**
- def **packet_upstream_player_look**
- def **packet_upstream_player_position**
- def **packet_upstream_player_position_and_look**
- def **packet_downstream_entity_head_look**
- def **packet_downstream_entity_look**
- def **packet_downstream_player_position_and_look**
- def **downstream_disconnected**

Public Attributes

- **clients_and_positions**
- **out_enc_buff**
- **old_enc_buff**
- **mobs_per_client**
- **first_enemy_id**
- **packet_done**
- **is_waiting**
- **block_len**

Static Public Attributes

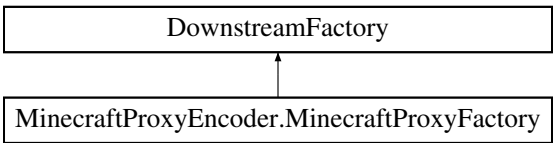
- **quiet_mode** = False
- **events_enabled** = False
- **upstream_factory_class** = UpstreamEncoderFactory

The documentation for this class was generated from the following file:

- MinecraftProxyEncoder.py

3.4 MinecraftProxyEncoder.MinecraftProxyFactory Class Reference

Inheritance diagram for MinecraftProxyEncoder.MinecraftProxyFactory:



Public Member Functions

- def **__init__**
- def **connectionMade**
- def **sync_buff**

Public Attributes

- **receiving_packet_queue**
- **num_client_encoders**
- **num_waiting_encoders**
- **out_enc_buff**

Static Public Attributes

- **bridge_class** = MinecraftProxyBridge
- tuple **out_enc_buff** = bytearray()
- int **num_client_encoders** = 0
- int **num_waiting_encoders** = 0
- string **motd** = "Proxy Server"

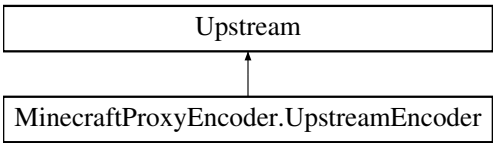
- **forwarding_packet_queue** = None

The documentation for this class was generated from the following file:

- MinecraftProxyEncoder.py

3.5 MinecraftProxyEncoder.UpstreamEncoder Class Reference

Inheritance diagram for MinecraftProxyEncoder.UpstreamEncoder:



Static Public Attributes

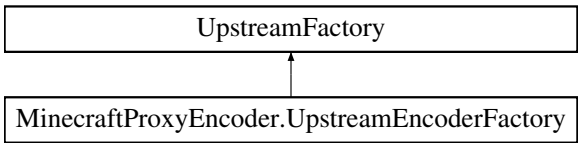
- tuple **in_enc_buff** = bytearray()
- int **assigned_enemy** = 0
- int **assigned_id** = 0

The documentation for this class was generated from the following file:

- MinecraftProxyEncoder.py

3.6 MinecraftProxyEncoder.UpstreamEncoderFactory Class Reference

Inheritance diagram for MinecraftProxyEncoder.UpstreamEncoderFactory:



Static Public Attributes

- **protocol** = UpstreamEncoder

The documentation for this class was generated from the following file:

- MinecraftProxyEncoder.py

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