

---

# **Fusion**

**Kamil Rusin**

**Aug 17, 2019**



## CONTENTS:

|          |                           |          |
|----------|---------------------------|----------|
| <b>1</b> | <b>Indices and tables</b> | <b>1</b> |
| <b>2</b> | <b>Docs</b>               | <b>3</b> |
|          | <b>Index</b>              | <b>7</b> |



## INDICES AND TABLES

- genindex
- modindex
- search



### **class Game**

This class represents a game. It creates a common context for all joined clients.

### **Public Types**

#### **enum Team**

This enum contains the teams' identifiers.

*Values:*

**kRandom = 0**

This indicates that a `WebSocketSession` should be assigned to a random team.

**kFirst = 1**

This identifies the first team in the game.

**kSecond = 2**

This identifies the second team in the game.

**using join\_result\_t = std::optional<std::tuple<system::IncomingPackageDelegate&, json::JSON, std::size\_t>>**

This is the return type of the `Join` method.

### **Public Functions**

**Game (const *Game* &other)**

Explicitly deleted copy constructor. It's deleted due to presence of `unique_ptr` in class hierarchy.

#### **Parameters**

- [in] `other`: Copied object.

***Game* &operator= (const *Game* &other)**

Explicitly deleted copy operator. It's deleted due to presence of `unique_ptr` in class hierarchy.

**Return** Reference to `this` object.

#### **Parameters**

- [in] `other`: Copied object.

**Game ()**

This constructor creates the asynchronous reading delegate.

void **SetLogger** (LoggerManager::Logger *logger*)

Sets the logger of this instance. This method sets the logger of this instance to the given one.

### Parameters

- `logger`: [in] The given logger.

LoggerManager::Logger **GetLogger** () **const**

Returns this instance's logger. This method returns the logger of this instance.

**Return** The logger of this instance is returned. If the logger has not been set this method returns `std::nullptr`.

*Game::join\_result\_t* **Join** (WebSocketSession \**session*, **const** std::string &*nick*, *Team* *team* = *Team::kRandom*)

This method joins the client to this game and adds its session to the proper team. If the joining was successful it returns a pair of a new incoming package delegate and a JSON object containing information about the current state of the game, otherwise the returned object is in its invalid state.

**Return** If the joining was successful pair of a new incoming package delegate and a JSON object containing information about the current state of the game is returned, otherwise the returned object is in its invalid state.

**Note** If a client has already joined to this game, the method does nothing and returns an invalid state object.

### Parameters

- [in] `session`: This is the WebSocket session connected to a client.
- [in] `nick`: This is the nick of the new player.
- [in] `team`: This identifies the team, to which the client will be assigned. The default value indicates that the client will be assigned to a random team.

bool **Leave** (WebSocketSession \**session*)

This method removes the given session from this game. It returns a indication whether or not the session has been removed.

**Return** A indication whether or not the session has been removed is returned.

**Note** If the session has not been assigned to this game, the method does nothing.

### Parameters

- [in] `session`: The session to be removed from this game.

void **BroadcastPackage** (**const** std::shared\_ptr<system::Package> &*package*)

This method broadcasts the given package to all clients connected to this game.

### Parameters

- [in] `package`: The package to be broadcasted.

std::size\_t **GetPlayersCount** () **const**

This method returns the amount of players in this game.

**Return** The amount of players in this game is returned.

### Public Static Attributes

```
constexpr size_t kMaxPlayersPerTeam = 5
```

This constant contains the number of players that can be assigned to a team.



## F

fusion\_server::Game (C++ class), 3  
fusion\_server::Game::BroadcastPackage  
(C++ function), 4  
fusion\_server::Game::Game (C++ function), 3  
fusion\_server::Game::GetLogger (C++ func-  
tion), 4  
fusion\_server::Game::GetPlayersCount  
(C++ function), 4  
fusion\_server::Game::Join (C++ function), 4  
fusion\_server::Game::join\_result\_t (C++  
type), 3  
fusion\_server::Game::kFirst (C++ enumera-  
tor), 3  
fusion\_server::Game::kMaxPlayersPerTeam  
(C++ member), 5  
fusion\_server::Game::kRandom (C++ enumera-  
tor), 3  
fusion\_server::Game::kSecond (C++ enumera-  
tor), 3  
fusion\_server::Game::Leave (C++ function), 4  
fusion\_server::Game::operator= (C++ func-  
tion), 3  
fusion\_server::Game::SetLogger (C++ func-  
tion), 3  
fusion\_server::Game::Team (C++ enum), 3