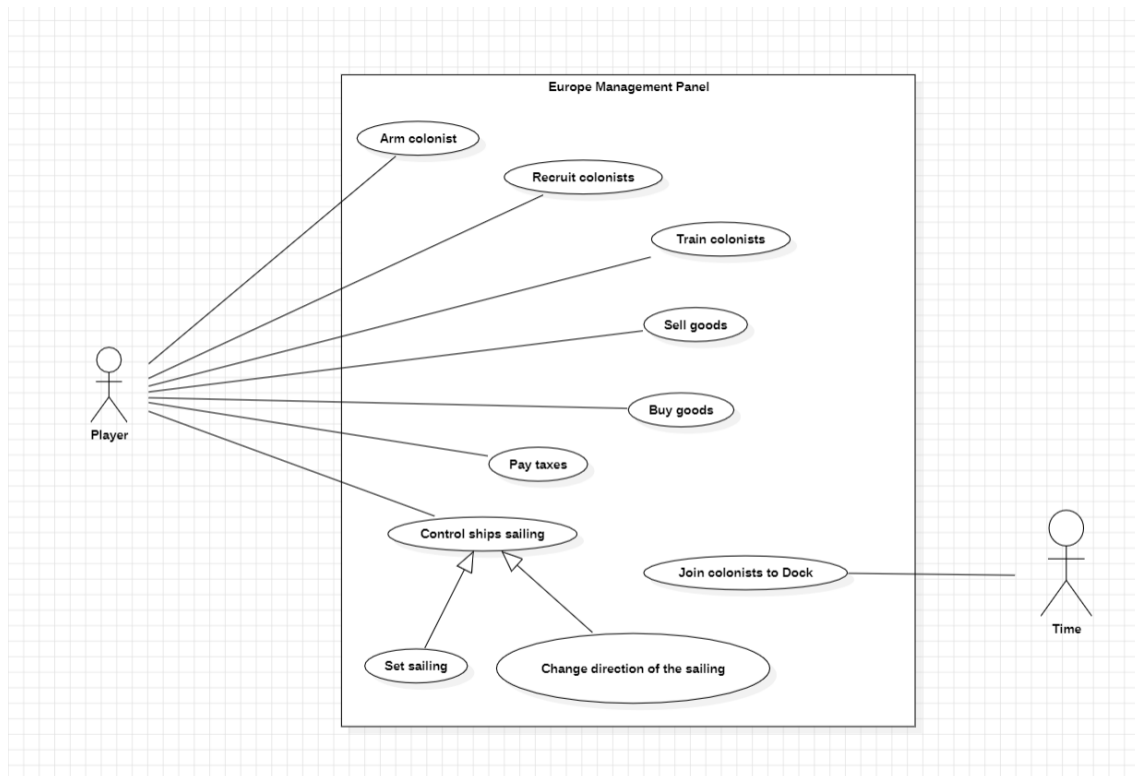


## Software Engineering Project

### Use Case Diagram

Since *Freecol* game is a very complex system, we decided to divide it in small sub-diagrams. In this report I will be focusing on the interaction between a player and the Europe Panel that he can access when he has a ship on a European port. In that panel, he can do some actions that are represented in the next diagram in the form of use cases. Then I'll proceed to give a small explanation for each Use Case and Actor represented on it.



### 1. Actors

For this Use Case diagram, I identified two different types of actors that interact with the system:

**Player:** represents a human or an AI that plays the game.

**Time:** represents a random period of time that make new colonists appear on the European panel.

## 2. Use Cases

Use case: <a href="#">Arm colonist</a>
ID: 1
Description: The player can arm the colonist with tools but must pay for it.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Recruit colonists</a>
ID: 2
Description: The player can recruit a colonist from the New World to then embark on his ship.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Train colonists</a>
ID: 3
Description: The player can train a colonist to become an expert unit to then embark on his ship.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Sell goods</a>
ID: 4
Description: The player can sell the goods that are on his boat to the market and make money from it.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Buy goods</a>
ID: 5
Description: The player can buy goods from the market with gold and load his ship with them.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Pay taxes</a>
ID: 6
Description: The player can pay taxes from boycotted goods allowing him to then sell his previous boycotted goods on the market.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Control ships sailing</a>
ID: 7

Description: The player tries to change ship sailing state on the system.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Set sailing</a>
ID: 8
Description: The player can remove his boat from the European port to the ocean for sailing.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Change Direction of the Sailing</a>
ID: 9
Description: The player can choose the destination of the boat on ocean between Europe or America.
Main actor: Player
Secondary actors: None

Use case: <a href="#">Join colonists to Dock</a>
ID: 10
Description: The time makes colonists appear on the Dock panel.
Main actor: Time
Secondary actors: None