

Diplomacy Desktop App - Use Cases

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Table of Contents

UC 01: Download Game	4
UC 02: Game Crash	5
UC 03: Connection Lost	5
UC 04: Game is compromised by attackers	6
UC 05: View User Manual	7
UC 06: Create game	7
UC 07: Enter Game Name	8
UC 08: Enter Game Description	8
UC 09: Set Adjudication Period	9
UC 10: Join Game as Player	9
UC 11: Join Game as Spectator	10
UC 12: User login	11
UC 13: Start Game	12
UC 14: Display Game Interface	13
UC 15: Assign Powers	13
UC 16: Spring Season	14
UC 17: Fall Season	15
UC 18: Winter Season	15
UC 19: Advance Year	16
UC 20: Start Chat with Individual Player	16
UC 21: View Chat with Individual Player	17
UC 22: Send Chat to Individual Player	17
UC 23: Spectator Views Chat	18
UC 24: View Chat with All Players	18
UC 25: Send Chat to All Players	19

UC 26: Reorder	19
UC 27: User makes a Move order	20
UC 28: Multiple Units Attempt to Move into Same Province	21
UC 29: Two Units Exchange Places	21
UC 30: Dislodged Unit Can Cause Standoff	22
UC 31: Unit Rotation	22
UC 32: Illegal move: Attacking own unit	23
UC 33: User makes a move order for army or fleet into a non-adjacent province.	24
UC 34: User makes a move order for army into water province	24
UC 35: User makes a Move order to move their fleet into an inland province.	25
UC 36: User makes a move order into an occupied province	26
UC 37: Support an Attack	26
UC 38: Compare Strengths	27
UC 39: Seize Supply Center	28
UC 40: Gain Troops	28
UC 41: Resolve orders	30
UC 42: Retreat	30
UC 43: Retreats to the Same Province	31
UC 44: Disband Units	32
UC 45: Civil Disorder	32
UC 46: Civil Disorder Disbandment	33
UC 47: Holding position	34
UC 48: Supporting a Hold	34
UC 49: Cut off the Support	35
UC 50: Convoy	36
UC 51: Multiple Convoys on Same Unit	37
UC 52: Illegal move: Unit attempts position trade without convoy	38

UC 53: Attacking Convoy	38
UC 54: Disrupting a Convoy	39
UC 55: Supported Attack Cutting a Convoyed Attack	39
UC 56: End turn	40
UC 57: Time limit up	40
UC 58: Request draw	41
UC 59: Win Game	42
UC 60: Exit Game Application	43
UC 61: Stalemate	44

UC 01: Download Game

Name: Download the game

Identifier: UC 01

Description: A user downloads the game from our GitHub repository.

Precondition: User is connected to the internet. System requirements are met.

Postcondition: Game is downloaded to user's computer. Game is ready to launch.

Basic Course of Action:

- 1. User navigates to the game GitHub repository.
- 2. User clicks on download the game.
- 3. Game is downloaded to user computer.
- 4. User can launch the game.

Alternate Course A: System Requirements not met

- 1. User navigates to the game GitHub repository
- 2. User clicks on download the game.
- 3. Game fails to download due to user computer not meeting software needs.
- 4. User is notified with error message.

UC 02: Game Crash

Name: Game application crash.

Identifier: UC 02

Description: The game application crashes while the application is running.

Precondition: Player computer runs out of main memory.

Postcondition: Game crashed.

Basic Course of Action:

- 1. Player's computer runs out of main memory
- 2. The application crashes
- 3. Player loses the game
- 4. All other players continue the game
- 5. Player cannot rejoin the game

UC 03: Connection Lost

Name: Connection lost

Identifier: UC 03

Description: Player lost internet connection. Thus, player lost connection to the game.

Precondition: Player computer lost internet connection.

Postcondition: Player lost connection to the game. An error message is shown.

Basic Course of Action:

- 1. Player's computer lost internet connection
- 2. Player is disconnected from the game in session
- 3. Player lost the game and is sent to the main menu.
- 4. All other players remain in the game.
- 5. An error message is shown to player.
- 6. The player cannot rejoin the game.

UC 04: Game is compromised by attackers

Name: Game is compromised by attackers

Identifier: UC 04

Description: Attackers sabotage integrity of the game

Precondition: Game is in progress

Postcondition: Game integrity is compromised

Basic Course of Action:

- 1. Game is running and in progress
- 2. Attacker(s) (Either in-game players or outside entities) alter flow of game
- 3. Game integrity is compromised
- 4. Data is altered in an illegal manner

UC 05: View User Manual

Name: View user manual

Identifier: UC 05

Description: Player clicks help button at home screen to view the manual

Precondition: Game has been launched

Postcondition: User manual is displayed to the player

Basic Course of Action:

1. User launches game

2. Game options are displayed to the user

3. User clicks button to show user manual

4. User manual is displayed

UC 06: Create game

Name: Create game

Identifier: UC 06

Description: A player creates a new game session.

Precondition: No game is in session on our server. User is on our main menu page.

Postcondition: A new game setting is created. A game ID is generated.

Basic Course of Action:

1. User clicks 'Create Game' button

2. User fills out the game form:

1. Username (required field)

2. Game Name (required field)

3. Game Description (optional field)

- 4. Select Adjudication Period from dropdown menu(optional field default is 15 minutes)
- 5. Click the "Submit" button on the form
- 6. A Game ID is generated and displayed

Alternate Course A: A game is in session

- 1. Player clicks on the 'Create Game' button
- 2. Player gets notified that there is already a game in session
- 1. Player is navigated back to homepage.

UC 07: Enter Game Name

Name: Enter Game Name

Identifier: UC 07

Description: Game host may enter a custom name for the game session. This is not the game

ID.

Precondition: 'Create Game' button clicked from main menu. Game form is shown.

Postcondition: The session name is saved and displayed for other players

Basic Course of Action:

- 1. Host clicks the text box containing the game name, "Game" by default
- 2. Host types in a new name
- 3. The new name is saved by the session when the host clicks the create game button.

UC 08: Enter Game Description

Name: Enter Game Description

Identifier: UC 08

Description: Game host may enter a custom description for the game session for others to see

Precondition: 'Create Game' button clicked from main menu. Game form is shown.

Postcondition: The session description is saved and displayed for other players

Basic Course of Action:

- 1. Host clicks the text box containing the game description, empty by default
- 2. Host types in their own description of the game session
- 3. The new description is saved by the session when the host clicks the submit button.

UC 09: Set Adjudication Period

Name: Set Adjudication Period

Identifier: UC 09

Description: Host decides how long each turn lasts before advancing automatically

Precondition: 'Create Game' button clicked from main menu. Game form is shown.

Postcondition: The game's time limit applies to each round during gameplay

Basic Course of Action:

1. Host clicks the set adjudication period option

2. Host sets a time limit from minutes to hours

3. The game session saves the time limit for use in-game when the host clicks the submit button

UC 10: Join Game as Player

Name: Join Game as Player

Identifier: UC 10

Description: The player joins a game as a player.

Precondition: Another user has already created a game - the <u>Create Game Use Case</u> has

successfully been completed by another user.

Postcondition: The player successfully joins a hosted game as a player.

Basic Course of Action:

1. The player clicks the 'Join Game' button from the main menu.

2. User enters the game ID of the game they want to join.

3. User clicks 'Join Game' button.

4. User is prompted to enter user name. (see UC: user login)

5. User successfully joins the game as a player.

Alternate Course A: The game doesn't exist

1. The player clicks the 'Join Game' button from the main menu

2. User enters the game ID of the game they want to join.

3. The game doesn't exist.

4. Stay on the same page and inform the user of the problem.

UC 11: Join Game as Spectator

Name: Join Game as Spectator

Identifier: UC 11

Description: The player joins a game as a spectator.

Precondition: Another user has already created a game - the <u>Create Game Use Case</u> has

successfully been completed by another user. And the room already has 7 players or more.

Postcondition: The player successfully joins a hosted game as a spectator.

Basic Course of Action:

1. The player clicks the 'Join Game' button from the main menu.

2. User enters the game ID of the game they want to join.

3. User clicks 'Join Game' button.

4. User successfully joins the game as spectator.

Alternate Course A: The game doesn't exist

1. The player clicks the 'Join Game' button from the main menu

2. User enters the game ID of the game they want to join.

3. The game doesn't exist.

4. Stay on the same page and inform the user of the problem.

UC 12: User login

Name: User login

Identifier: UC 12

Description: User logs in to the game by creating a username.

Precondition: Application is open and user has already clicked 'Create Game' or 'Join Game'.

Postcondition: Username is created for the player

Basic Course of Action:

1. User types in unique username at prompt

2. User clicks 'Submit' or presses enter on their keyboard.

3. Username successfully created.

Alternate Course A: Username is already taken

1. User submits a username that is already taken by another user.

2. An error message will be displayed to prompt the user to enter a different username.

UC 13: Start Game

Name: Start Game

Identifier: UC 13

Description: Begin the game session.

Precondition: All 7, expected players are in the lobby.

Postcondition: All players are in the game and the game session starts with a Great Power assigned to each player and their corresponding units and supply centers.

Basic Course of Action:

1. All 7 players + spectators are in the lobby.

2. Host clicks 'Start Game'

3. Assign a unique color and randomize a country to each user

4. Load the core game elements for the user

5. Display game map along with units and starting positions of all users.

6. Begin the first spring season.

UC 14: Display Game Interface

Name: Display game interface

Identifier: UC 14

Description: Displays the game interface

Precondition: Game has started

Postcondition: User interface has been loaded

Basic Course of Action:

1. User should be able to view game map (partitioned)

2. User should have a unique name color coded with a legend

3. User country should have a unique color coded with a legend

4. Seasons should be displayed during each turn

5. User should have a view of available orders (move, support, convoy, hold)

6. User should be able to do negotiation through the chat room.

7. Timer should display minutes remaining for each player

8. User can choose to exit out of the game to the main menu

UC 15: Assign Powers

Name: Assign powers

Identifier: UC 15

Description: Randomly assign world powers to players at the beginning of the game

Precondition: Game is started. All players are in the game.

Postcondition: Each player is assigned a power randomly.

Basic Course of Action:

1. Game is started

2. A world power is assigned to each player randomly

3. Players start playing the game

UC 16: Spring Season

Name: Spring Seasons

Identifier: UC 16

Description: Set the ingame season to Spring.

Precondition: All players have accepted to end the previous season unanimously or the phase

time has run out.

Postcondition: The Winter season has ended and all newly acquired supply centers have been

assigned.

Basic Course of Action:

1. All newly acquired troops have been added to the map

2. Player can move his/her troops or fleet

3. Player can hold his/her troops or fleet

4. Players can attack other troops or fleet

5. Users can support an attack or defense of another country

UC 17: Fall Season

Name: Fall Season

Identifier: UC 17

Description: Set the in-game season to Fall.

Precondition: All players have accepted to end the previous season unanimously or the phase

time has run out.

Postcondition: The Spring season has ended.

Basic Course of Action:

1. Player can move his/her troops or fleet

2. Player can hold his/her troops or fleet

3. Players can attack other troops or fleet

4. Users can support an attack or defense of another country

5. Players can target nearby supply center locations, as taking any supply centers this

season will be added to you for Winter.

UC 18: Winter Season

Name: Winter Season

Identifier: UC 18

Description: Set the ingame season to Winter.

Precondition: Retreat phase and gain phase(in Winter) is completed. All players clicked end

turn button.

Postcondition: The Fall season has ended.

Basic Course of Action:

1. Player can build troops/fleets or disband a unit

2. Player cannot order any movements in this season.

15

UC 19: Advance Year

Name: Advance Year

Identifier: UC 19

Description: The year counter increments by one at the end of each winter season

Precondition: A winter season has ended

Postcondition: The year is increased by one and shown on-screen

Basic Course of Action:

1. A winter season comes to a close during an active game

2. The year is incremented by one

3. The change is reflected in-game for players to see

UC 20: Start Chat with Individual Player

Name: Start Chat with Individual Player

Identifier: UC 20

Description: A user can chat with an individual player

Precondition: User must be logged in and in the game.

Postcondition: Message is sent to another user

Basic Course of Action:

1. Player clicks the 'Chat' button anytime during game play.

2. User scrolls through list of players in the game

3. User right clicks the username of the player they want to chat with

- 4. User clicks 'Start individual chat' in the right-click menu
- 5. Chat between the two users pops up

UC 21: View Chat with Individual Player

Name: View Chat with Individual Player

Identifier: UC 21

Description: A user can view a chat they have with an individual player

Precondition: User must have completed <u>Start Chat with Individual Player Use Case</u>.

Postcondition: Chatroom between the users is displayed.

Basic Course of Action:

1. User clicks the 'Chat' button anytime during game play.

2. The user clicks an existing chat with another player from the sidebar of the chat.

3. The chat between those two players is shown.

UC 22: Send Chat to Individual Player

Name: Send Chat to Individual Player

Identifier: UC 22

Description: How to send a message to an individual player.

Precondition: User must have completed the View Chat with Individual Player Use Case.

Postcondition: Message is sent to an individual player.

Basic Course of Action:

1. User types their message in the chat text box.

2. User clicks submit or types enter on their keyboard.

UC 23: Spectator Views Chat

Name: Spectator Views Chat

Identifier: UC 23

Description: The Spectator can view the group chat

Precondition: User must be logged in and in the game.

Postcondition: Group chat room is displayed.

Basic Course of Action:

1. Spectator clicks the 'Chat' button anytime during game play.

2. Group chat pops up.

3. Spectator can view the chat.

UC 24: View Chat with All Players

Name: View Chat with All Players

Identifier: UC 24

Description: How to view the general chat room between all players.

Precondition: User must be logged in and in the game.

Postcondition: General chat room is displayed.

Basic Course of Action:

1. Player clicks the 'Chat' button anytime during game play.

2. User is in the 'General' chat pane, if not, user clicks the 'General' chat pane.

3. The general chat room is displayed.

UC 25: Send Chat to All Players

Name: Send Chat to All Players

Identifier: UC 25

Description: How to send a message to all players.

Precondition: User must have completed the View Chat with All Players Use Case.

Postcondition: Message is sent to all players.

Basic Course of Action:

3. User types their message in the chat text box.

4. User clicks submit or types enter on their keyboard.

UC 26: Reorder

Name: Reorder

Identifier: UC 26

Description: Player de-selects a unit by re-clicking on unit

Precondition: Player clicks on a province to ready an order

Postcondition: Player's unit is deselected.

Basic Course of Action:

1. Player selects a unit

2. Player changes their mind and wants to deselect unit

3. Player clicks on the selected unit.

UC 27: User makes a Move order

Name: User makes a Move order.

Identifier: UC 27

Description: On each turn, each Great Power can order all, some, or none of its units to Move.

Precondition: User has an army and/or fleets on the game board.

Postcondition: Move orders are submitted.

Basic Course of Action:

1. User clicks the province with said army or fleet unit.

User orders their army or fleet to move to an adjacent inland or coastal province by clicking said adjacent province.

3. User submits their orders.

4. The army or fleet is successfully moved into the adjacent province.

Alternate Course A: Another army or fleet is attempting to move into the same province

1. User clicks the province with said army or fleet unit.

User orders their army or fleet to move to an adjacent inland or coastal province by clicking said adjacent province.

Since no two units can occupy the same province at the same time, an army ordered to
move to an adjacent province can end up not moving at all (because of the positions or
orders of other units). Reference <u>UC 28: Multiple Units Attempt to Move into Same</u>

Province for further info.

a. See <u>Convoy use case</u> to see how an army can move across water provinces from one coastal province to another via Fleets.

20

UC 28: Multiple Units Attempt to Move into Same Province

Name: Multiple Units Attempt to Move into Same Province

Identifier: UC 28

Description: Multiple units with equal strength want to move to the same province

Precondition: Multiple units with equal strength are ordered to move to the same province

Postcondition: All units remain in their position

Basic Course of Action:

1. Multiple units are ordered to move to the same province

2. All units have equal strength

3. All units remain in their original provinces after the turn end

UC 29: Two Units Exchange Places

Name: Two Units Exchange Places

Identifier: UC 29

Description: Two units can exchange places if both or either are convoyed

Precondition: Two units are ordered to exchange places

Postcondition: Two units successfully exchange places

Basic course of action:

1. Two units are ordered to exchange places

2. Either or both units are convoyed

3. No attack by third unit on either of the unit

4. Both units successfully exchange their places

UC 30: Dislodged Unit Can Cause Standoff

Name: Dislodged Unit Can Cause Standoff

Identifier: UC 30

Description: A dislodged unit can still cause a standoff in a province different from the one that

dislodged it.

Precondition: Unit is dislodged.

Postcondition: Dislodged unit and other units causes a standoff with another province.

Basic Course of Action:

1. A province from an area dislodges the unit in the area next to it.

2. In the next turn, when two or more equally supported units are ordered to the same

province as the dislodged unit, neither can move.

UC 31: Unit Rotation

Name: Unit rotation

Identifier: UC 31

Description: Units may rotate around provinces given that they don't directly trade places

Precondition: Units have been moved into different provinces held by other units

Postcondition: Units have rotated provinces and switched positions

Basic Course of Action:

1. Player selects a unit to move

2. Player moves unit into another province held by another unit (allied, enemy)

3. Unit in another province rotates into a second province held by another unit (allied,

enemy)

4. Unit in third province rotates into the first province held by another unit (allied, enemy)

5. Unit positions have been rotated

UC 32: Illegal move: Attacking own unit

Name: Illegal Move: Attacking own unit

Identifier: UC 32

Description: Player attempts to attack their own troops/fleet

Precondition: Player attempts to make the attack order

Postcondition: Player's move action fails because it is illegal

Basic Course of Action:

 Player selects the province of their own unit or fleet (That is on hold) that they wish to move into.

2. Player attempts to submit the move order.

3. After all other players have submitted their orders, player is notified of the illegal move and his/her submitted order is disregarded.

UC 33: User makes a move order for army or fleet

into a non-adjacent province.

Name: User makes a move order for army or fleet into a non-adjacent province.

Identifier: UC 33

Description: An army or fleet is ordered to move into a non-adjacent province.

Precondition: User contains an army or fleet.

Postcondition: Move orders are submitted.

Basic Course of Action:

1. User clicks the province with said army unit.

2. User orders their army or fleet to move to a non-adjacent province.

3. User can order their army to move into a non-adjacent province, but their order will be unsuccessful.

UC 34: User makes a move order for army into

water province

Name: User makes a Move order to move their army into a water province.

Identifier: UC 34

Description: An army is ordered to move into a water province.

Precondition: User has an army near a water province.

Postcondition: Move orders are submitted.

Basic Course of Action:

4. User clicks the province with said army unit.

5. User orders their army to move to an adjacent water province by clicking said adjacent

province.

6. User can order their army to move into a water province, but their order will be

unsuccessful.

UC 35: User makes a Move order to move their fleet

into an inland province.

Name: User makes a Move order to move their fleet into an inland province.

Identifier: UC 35

Description: A fleet is ordered to move into an inland province.

Precondition: User has a fleet near an inland province.

Postcondition: Move orders are submitted.

Basic Course of Action:

1. User clicks the province with said fleet unit.

2. User orders their fleet to move to an adjacent inland province by clicking said adjacent

province.

3. The user can order/click to move their Fleet to an inland province, but the order will be

unsuccessful.

25

UC 36: User makes a move order into an occupied

province

Name: User makes a move order for army or fleet into an adjacent province that is occupied

Identifier: UC

Description: An army or fleet is ordered to move into an adjacent province.

Precondition: User contains an army or fleet.

Postcondition: Move orders are submitted.

Basic Course of Action:

1. User clicks the province with said army unit.

2. User orders their army or fleet to move to an adjacent province.

3. The attack power of the units will be calculated.

4. If the attack unit is stronger the defending unit is dislodge. Else the attack unit is put on hold.

UC 37: Support an Attack

Name: Support an Attack

Identifier: UC 37

Description: An army or fleet can support another army or fleet to increase the strength in

attack.

Precondition: The supporting unit is adjacent to the unit that is being attacked.

Postcondition: Strength is added to the army that is attacking.

Basic Course of Action:

1. The player selects the army or fleet to support (whether it be his own army/fleet or that of

another player) in attack.

2. The supported unit gains power.

Alternate Course A:

1. The supporting unit is attacked

2. The unit's support is cancelled and the supported unit loses the gained strength.

UC 38: Compare Strengths

Name: Compare Strengths

Identifier: UC 38

Description: The strengths of the attacker and attacked are compared to declare the winner

Precondition: A unit has attacked another unit in a legal move

Postcondition: A winner is declared

Basic Course of Action:

1. A unit attacks another unit

2. The amount of supports on each unit are checked

3. The strength provided by the support and the units themselves are added

4. The two total strengths are compared, the greater one declared the winner

UC 39: Seize Supply Center

Name: Seize Supply Center

Identifier: UC 39

Description: Country takes control of a supply center it has a unit occupying

Precondition: Unit is on the same province of a foreign-owned or unowned supply center

during winter

Postcondition: The supply center is marked as owned by the country

Basic Course of Action:

1. Unit occupies a supply center during winter

2. The ownership of the center is checked

3. If foreign or unowned, the country seizes control

4. The number of centers controlled total by the country is updated

Alternate Course of Action:

1. The occupied supply center is already owned by the same country

2. The center's ownership remains unchanged

UC 40: Gain Troops

Name: Gain Troops

Identifier: UC 40

Description: The player selects army or fleet units to build on their original supply centers.

Precondition: The season is winter, the country owns more supply centers than units, and the original supply centers are unoccupied.

Postcondition: New unit(s) are created on the supply centers.

Basic Course of Action:

1. The season changes to Winter.

2. Countries are assigned ownership of unoccupied or foreign owned supply centers when

one of their troops hold on it.

3. The total number of supply centers owned and number of troops owned are checked

and compared.

4. The country's original supply centers are checked to see if still owned and unoccupied.

5. The country may choose army and fleet units up until the number of total units equals

the number of controlled supply centers but less than or equal to there starting cities.

6. The validity of the selected units are checked.

7. The units are created when the turn ends.

Alternate Course A: The number of units is greater than or equal to the number of controlled

supply centers.

1. The player does not have the option to select units to build during the turn.

Alternate Course B: The country's original supply centers are occupied.

1. The player does not have the option to select units to build during the turn.

Alternate Course C: The country's original supply centers are no longer owned.

1. The player does not have the option to select units to build during the turn.

Alternate Course D: The player chooses not to build any units.

1. The unit selections are left unpicked.

UC 41: Resolve orders

Name: Resolve orders

Identifier: UC 41

29

Description: Resolve all orders submitted by the players at the end of each season

Precondition: All players have submitted all their orders. (clicked the end turn button)

Postcondition: Players orders are implemented. Use case of change season is executed.

All orders will be resolved at the same time. All orders from all players will be displayed.

Successful and unsuccessful orders will be indicated.

Basic Course of action:

- 1. Players submit their orders
- 2. All orders need to be resolved at the same time
- 3. Some orders will be successfully executed
- 4. Some orders will be failed to execute
- 5. Failed orders will be highlighted and the reason of fail execution will be displayed

UC 42: Retreat

Name: Retreat

Identifier: UC 42

Description: A country has been attacked/invaded, so the player must retreat his/her troops.

Precondition: A players country has been attacked/invaded. Retreats can't be convoyed or

supported. The resolve use case has been executed.

Postcondition: Player must move his/her troops to another region.

Basic Course of Action:

- 1. Prompt user to move troops in a available province.
- 2. Troops are moved to the designated region.

Alternate Course A:

1. If no province is available then unit is automatically disbanded

UC 43: Retreats to the Same Province

Name: Retreats to the Same Province

Identifier: UC 43

Description: When two or more units are ordered to retreat to the same province, they are all

automatically disbanded

Precondition: Retreating units are ordered to the same province

Postcondition: The affected units are disbanded

Basic course of action:

1. Dislodged units are ordered to retreat to the same province

2. The turn ends

3. The affected units are disbanded regardless of country

4. The province is left unoccupied

UC 44: Disband Units

Name: Disband Units

Identifier: UC 44

Description: The players have to disband their units when the unit is under the attack and has

no order to move elsewhere.

Precondition: Player must have units available to disband. The resolve use case has been

executed.

Postcondition: Remove unit from the game map and country

Basic Course of Action:

1. If a country has fewer supply centers than units, it must disband the excess number of

units.

2. If two or more units are ordered to retreat to the same province, they all must be

disbanded.

3. The unit will be immediately disbanded when there is no available province to retreat.

4. A unit can either choose to retreat or disband. The user will be given the option to either

retreat or disband the unit.

UC 45: Civil Disorder

Name: Civil Disorder

Identifier: UC 45

Description: When a player leaves the game early or doesn't submit orders on a spring or fall

turn, civil disorder occurs. All units hold with no support from each other, and dislodged units are

disbanded.

Precondition: Player leaves the game early or doesn't submit orders on a spring or fall turn

Postcondition: The country's units remain in place with no other actions

Basic course of action:

1. Player leaves the game early or disconnects

2. Country enters a state of civil disorder

3. Their units hold in place with no supporting each other

32

4. If dislodged, the attacked unit is disbanded instead

UC 46: Civil Disorder Disbandment

Name: Civil Disorder Disbandment

Identifier: UC 46

Description: Units are disbanded in a certain order when supply centers are lost

Precondition: Country is in a state of civil disorder

Postcondition: Certain units are disbanded when supply centers are lost

1. Country in civil disorder loses a supply center

Amount of centers owned is compared to amount of units, where the former drops below the latter

3. Unit the most areas away from the home country is disbanded

4. If equidistant with another unit, the fleet is disbanded first

If there are only fleets or armies equidistant, disbanded based on alphabetical order of the province names

UC 47: Holding position

Name: Holding position

Identifier: UC 47

Description: hold the current position of a unit

Precondition: the unit does not get a move order

Postcondition: the unit successfully hold its position after resolving orders

Basic Course of Action:

- 1. Player should be able to keep units in place
- 2. Players that don't specify an action will automatically hold at the end of a turn

Alternate Course A: The unit was attacked

- 1. A unit might be attacked by another unit of different power
- 2. If the attack has more strength, the holding unit lose it positions
- 3. The unit then has to be either retreat or disband

UC 48: Supporting a Hold

Name: Supporting a Hold

Identifier: UC 48

defense.

Description: An army or fleet can support another army or fleet to increase the strength in

Precondition: The supporting unit is adjacent to the unit that is defending.

Postcondition: Strength is added to the army that is defending.

Basic Course of Action:

- The player selects the army or fleet to support (whether it be his own army/fleet or that of another player) in defense.
- 2. The supported unit gains power.

Alternate Course of Action A:

- 3. The supporting unit is attacked.
- 4. The unit's support is cancelled and the supported unit loses the gained strength.

UC 49: Cut off the Support

Name: Support cut off

Identifier: UC 49

Description: Attacking player cuts off the support of an opposing player

Precondition: Attacking player is attacking into an opposing players support

Postcondition: Defending player has their support cut

Basic Course of Action:

1. Attacking player selects a unit.

2. Attacking player specifies an opposing support unit to attack.

3. Attacking player confirms action.

4. Defending player has their support cut.

UC 50: Convoy

Name: Convoy

Identifier: UC 50

Description: The player uses a fleet unit to carry an army unit over a body of water to another

area.

Precondition: The army unit is adjacent to the body of water being crossed, and fleet is in the

body of water being convoyed across

Postcondition: The army unit has crossed the body of water and placed on the target area.

Basic Course of Action:

1. The army unit is ordered to move to an area across a body of water.

2. A fleet unit within that water is ordered to convoy.

3. The fleet unit selects the army unit to convoy, then selects the target area the army has

also targeted.

4. At the end of the turn, the army unit is placed on the new land.

Alternate Course A: The targeted land isn't adjacent to body of water the army is adjacent to.

1. At the end of the turn, the army unit holds in its current area.

Alternate Course B: The fleet is not in the body of water being crossed.

1. At the end of the turn, the army unit holds in its current area.

Alternate Course C: The fleet selects the wrong army unit or wrong target area.

1. At the end of the turn, the army unit holds in its current area.

Alternate Course D: The fleet unit is attacked by a foreign country.

1. At the end of the turn, the army unit holds in its current area.

UC 51: Multiple Convoys on Same Unit

Name: Multiple Convoys on Same Unit

Identifier: UC 51

Description: Multiple different units convoy same unit

Precondition: multiple different fleets are ordered to convoy one unit

Postcondition: convoy succeeded

Basic Course of Action:

1. Multiple fleets locate on different convoy routes

2. All fleets are ordered to convoy one same unit

3. No convoy is cutted off

4. Convoy succeeded

Alternative Course A:

- 1. Multiple fleets locate on different convoy routes
- 2. All fleets are ordered to convoy one same unit
- 3. One of the convoy is attacked, the route is closed
- 4. Other convoyes are not attacked, the convoy routes remain open
- 5. Convoy succeeded

Alternative Course B:

- 1. Multiple fleets locate on two different convoy routes
- 2. All fleets are ordered to convoy one same unit
- 3. All convoy are attacked, all convoy routes are closed
- 4. Convoy failed

UC 52: Illegal move: Unit attempts position trade without convoy

Name: Illegal position trade without convoy

Identifier: UC 52

Description: Unit attempts position trade without a convoy

Precondition: Player selects a unit to swap positions with, without a convoy

Postcondition: Move fails because player has committed an illegal action

Basic Course of Action:

- 1. Player selects a unit
- 2. Player specifies another unit to trade positions with
- 3. Player does not have a convoy to support the position trade

4. Move fails because it is an illegal action

UC 53: Attacking Convoy

Name: Attacking Convoy

Identifier: UC 53

Description: A convoy is attacked by other unit

Precondition: Opposition unit attacks the fleet that convoy other unit

Postcondition: Convoy failed.

Basic Course of Action:

1. A fleet is ordered to convoy other unit.

2. Opposition unit attacks the fleet.

3. Opposition unit is stronger.

4. Convoy failed

Alternative Case A:

1. A fleet is ordered to convoy other unit.

2. Opposition unit attacks the fleet

3. Opposition unit is not stronger than the fleet

4. The attack failed, convoy succeeded.

UC 54: Disrupting a Convoy

Name: Disrupting a Convoy

Identifier: UC 54

Description: A convoy is ordered on a dislodged fleet

Precondition: A fleet is dislodged

Postcondition: The convoy order fails

Basic course of action:

1. A fleet is ordered to convoy

2. The fleet is dislodged during the turn

3. The convoy order is failed

UC 55: Supported Attack Cutting a Convoyed Attack

Name: Supported Attack Cutting a Convoyed Attack

Identifier: UC 55

Description: A supported attack wins against a convoyed attack, when the supporter and the

convoy are the targets of each side

Precondition: This occurs when a convoyed army unit attacks an enemy, where this enemy is

supporting an attack on the fleet doing the convoying

Postcondition: The convoyed army unit remains at its province and the fleet is dislodged

Basic Course of Action:

1. Preconditions are met

2. The support is not cut

3. The convoyed attacker instead holds in its province

4. The fleet is dislodged and forced to retreat or disband

UC 56: End turn

Name: End turn

39

Identifier: UC 56

Description: Player submits their orders.

Precondition: Player completes its orders.

Postcondition: The orders are sent to the <u>resolve orders use case.</u>

Basic Course of Action:

1. User clicks end turn button.

2. The player's icon is displayed in the players who submitted orders pane.

UC 57: Time limit up

Name: Time limit up

Identifier: UC 57

Description: Player's time has reached its limit.

Precondition: It is the player's turn.

Postcondition: Player fails to click submit order button within the time limit.

Basic Course of Action:

1. Player made orders or wasn't at the computer.

2. Player did not click submit order button within the time limit.

3. All troops for that great world power is put on hold

UC 58: Request draw

Name: Request draw

Identifier: UC 58

Description: User no longer wants to continue the game and requests to end the game with the

approval of all the remaining players.

Precondition: Game has started and request for draw has not already been made in round.

Postcondition: a prompt is displayed to all players asking them whether or not they accept the

draw

Basic Course of Action:

1. One players clicks the draw button

2. All remaining users will be notified about the request

Alternate Course A: Players reject the request for a draw.

1. If at least one player rejects the request for the draw, then the request fails.

2. All remaining users will be notified of the rejection.

3. The game continues

UC 59: Win Game

Name: Win Game

Identifier: UC 59

Description: End the current game when certain conditions are met.

Precondition: One country controls eighteen supply centers or all remaining countries agree to

end the game.

Postcondition: The game ends and the winning country or countries are displayed on the

screen.

Basic Course of Action:

41

1. When a country seizes a supply center, the amount of supply centers it controls total is

checked.

2. If the number of supply center is greater than or equal to eighteen, the game

automatically ends.

3. The winning country is displayed on the screen and the game case ends.

Alternate Course A: All players except the winner have been eliminated

1. No player has controlled eighteen supply centers.

2. A player has attacked and eliminated all other players on the board.

3. The winning country is displayed on the screen and the game ends.

Alternate Course B: End game by draw

1. All remaining countries agree to end on a draw.

2. The game ends with all countries being notified of the draw.

UC 60: Exit Game Application

Name: Exit Game Application

Identifier: UC 60

Description: Player exits from game application..

Precondition: Player has the game application open.

Postcondition: Player exit out of the game application.

Basic Course of Action:

1. User has game application open and is in the game menu.

2. Player exits out of the game by pressing the 'x' button located in the header.

3. Player is exited out of the desktop application and the application is closed.

Alternate Course A: User (Not Host) is in an ongoing game and wants to exit

1. User has game application open and is in a game among other players.

2. Player exits out of the game by pressing the 'x' button located in the header.

3. Player is exited out of the desktop application and the application is closed.

4. The game continues without the player that had exited.

Alternate Course B: User (Host) is in an ongoing game and wants to exit

1. User has game application open and is in a game among other players.

2. Player exits out of the game by pressing the 'x' button located in the header.

3. Player is exited out of the desktop application and the application is closed.

4. All players within the game are kicked and the game is closed.

UC 61: Stalemate

Name: Stalemate

Identifier: UC 61

Description: End the current game when all players agree a draw request

Precondition: One player has pressed the request draw button

Postcondition: The game ends in a stalemate

Basic Course of Action:

1. All remaining great powers agree to draw to the game

2. The game ends in a stalemate