

Kings and Things

COMP 3004 Winter 2014

Team 17

Tyler Babin

Ryan Bottema

Brandon Schurman

Table of Contents

Section 1 – Game rules	1
Section 2 – Requirements	18
Section 3 – Use Cases.....	22
Section 4 – Design Decisions.....	41
Section 5 – Class Diagrams.....	42
Section 6 – Sequence Diagrams.....	45

Section 1 - Game Rules

Below are the official rules for Kings and Things. Unique Identifiers have been given to the different sections to allow for requirements traceability. These identifiers will consist of 3 sections: GR-XX-0X, with the first section, GR, standing for Game Rules. The second section, XX, will consist of the current phase of the rules, for example SG for setup game, GC for gold collection, etc. The last section, 0X, will stand for the subsection of the rule. Example: GR-GC-01 would refer to the first section of the Gold Collection Phase.

The 234 counters with the blank backs are called *Things*. They represent the fantastic creatures, special income counters, magic items, treasures, gold and random events in the world of **Kings and Things**. The remaining counters - all with variously marked backs - are forts (in four sizes), control markers (used to denote ownership of land hex tiles and Thing stacks), and special characters (the powerful heroes of the world).

SAMPLE CREATURE COUNTER

FUNNY SYMBOLS USED ON COUNTERS

- ▲ = FLYING CREATURE
- ★ = MAGIC-USING CREATURE
- = CAN CHARGE IN COMBAT
- = USES RANGED COMBAT
- * = HAS SPECIAL ABILITY
- (2) = PARENTHESISED COMBAT VALUE; CAN TAKE MORE THAN ONE HIT IN COMBAT

(1.3) The Player Racks

The racks are used to hold Things not currently in use and to keep them secret from the other players. Treasures, events, magic items, special income counters and creatures can all be kept on your nifty thingamajigs. Special characters, gold counters, and forts may *never* be placed on them.

2 SETTING UP THE GAME

(2.1) The Standard Four Player Game

Before you can set out to reunite the shattered kingdom of Kadab (by conquering it yourself, of course), there are a couple of things you should know and do. **Kings & Things*** works best with four players, but if you can't find that many minor nobles, even two or three players will find the game fun and exciting.

There are a number of tasks that need to be done to set up the game. They are:

(2.11) The Bank: This is where all those important game pieces are kept so they are easily accessible throughout the game. Sort the forts, gold pieces and control markers by type. Set them off to one side of the playing area.

GR-SG-01

(2.12) The Playing Cup: This is what you will randomly draw Things from. Place all of the Thing counters in a large cup, bowl, or even the box top (see, every component has an important function). Mix well. Oh, don't forget to punch them out first.

GR-SG-02

(2.13) Special Characters: Randomly determine which side of the back-printed special character counters will be used in the game. Some acceptable methods to do this are: (1) toss them from a cup or your hand and see which side they fall on, or (2) roll a die for each counter: 1 - 3 = front, 4 - 6 = back. Set them near the bank.

GR-SG-03

(2.14) Hex Tile Set-up: Now it's time to see exactly what the Big Boom is doing to the Kadab terrain this week. Set aside four of the eight sea hexes (short for hex tiles). Then shuffle all the land and four remaining sea hexes together face down into a large deck. Now lay out the board according to the diagram in the illustration below. Don't turn the hexes face-up yet.

GR-SG-04

The arrow shows the order in which hexes are laid out.
The four stars indicate the four possible starting points.

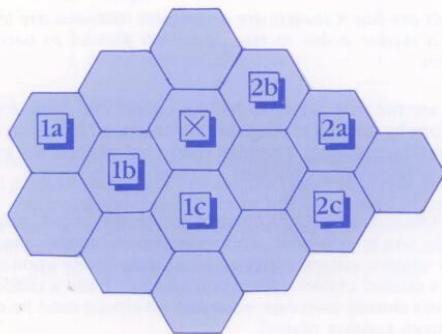
GR-SG-05

(2.15) Starting Positions: There are four possible places to start your kingdom, as shown in the previous illustration. Each player rolls two dice. The high roller chooses a starting position first (he's now the *first player*), followed by the other players in clockwise order (you may have to shift seats when you're through, so don't get comfortable). The final arrangement of seats, clockwise from the first player, is known as the *player order*. Now you can turn those hexes face-up.

Note: If your starting position is a sea hex or is adjacent to two or more sea hexes, you may remove the sea hex(es) and replace it with a hex drawn from the deck. Repeat this process until your starting position is land with at least two land hexes adjacent to it.

GR-SG-06

(2.16) Starting Kingdoms: Each player receives a set of control markers from the bank and places one marker in his starting hex to show that he owns it. Then, in player order, each player selects and marks a second hex. Repeat this procedure one more time so that each player has a kingdom consisting of three hexes. A player's second and third hex *must* be adjacent to at least one of his previous hexes, and may not be adjacent to the hex of another player.



- 1a = Player 1's starting position
- 2a = Player 2's starting position
- 1b = Player 1's next pick
- 2b = Player 2's next pick
- 1c = Player 1's last pick (he may not pick **X** as his last hex; it is adjacent to 2's Kingdom)
- 2c = Player 2's last pick

GR-SG-07

(2.17) Starting Forces: Next, each player takes 10 gold pieces (see Section 5) and one tower from the bank, and a rack. In player order, each player takes his tower and puts it in one of his hexes.

Then, again in player order, each player draws 10 Things from the cup (at random - no peeking!). In player order, each minor noble may place some or all of his Things on the board:

* *Special income counters* include cities, villages, and other counters keyed to specific terrain and printed with gold values. You can place one (and only one) special income counter in each hex you own. Villages and cities can be placed in any of your hexes. Other special income counters can only be placed in hexes of their terrain type.



Example: The Elephants' Graveyard counter says 'Jungle'. If you have a jungle hex, you may place the graveyard there; if you don't you can't place the graveyard on the board.

* *Creature counters* include killer raccoons, ice worms, and other various critters that populate Kadab. You can place your creature counters in any hexes you own, up to 10 per hex. Place them face down and make neat little stacks in whatever hexes you put them.



* *Magic items and treasures* (along with any other unplayed Things) are placed in your rack.



(2.18) Exchanging Things: Next, in player order, players who still have Things on their racks can turn them in for new ones. A player gets to draw one new counter for each counter he returns to the cup. Decide what Things you will return; then draw replacements; then put the returned counters into the cup. If you don't like your replacement counters, tough - you can't replace them again.

Again in player order, anyone who drew replacement counters can place them on the board, according to the rules in 2.17. The rest are placed on the racks.

(2.19) Preparing the Deck: Shuffle all the unused terrain hexes together with the four sea hexes set aside earlier. Keep this deck face down and set it near the bank.

(2.2) Two or Three Players

In a two or three player game, the board is smaller; see Section 16.

3 THE SEQUENCE OF PLAY

Kings & Things* is played in *turns*; each turn is divided into *phases*.

(3.1) The First Player

During set-up, a player order was determined (see Section 2.15). During each phase, the players perform actions in order.

GR-SG-08

Example: In the Gold Collection Phase, the first player takes gold, then the player to his left does, etc. Once all players have taken gold, the next phase begins.

At the beginning of the *next* turn, the player order shifts. The old second player - the one to the first player's left - becomes the new first player and performs actions first in each phase. At the beginning of each subsequent turn, the player order shifts like this again. (We suggest that you have an official 'changing of the order' at the end of each turn.)

Note: In a two-player game the player order does not change.

(3.2) The Turn Sequence Outline

An abbreviated sequence of play is printed on the back of the central pull-out section of these rules. What follows here is a brief explanation including rule section references.

GR-TS-01

GR-TS-02

GR-TS-03

GR-TS-04

GR-TS-05

GR-TS-06

GR-TS-07

GR-TS-08

GR-TS-09

(3.21) Gold Collection Phase: Determine income and collect gold pieces from the bank (see **Section 5**). Gold collection is mandatory.

(3.22) Recruiting Characters: Each player may attempt to recruit one special character (see **Section 6**). Special character recruitment is optional.

(3.23) Recruiting Things: Each player draws Things from the cup. Players may trade in unwanted Things from their racks. Place Things on the board (see **Section 7**). Thing recruitment is mandatory.

(3.24) Random Events Phase: Each player may play one Random Event counter from his rack (see **Section 14**). Random event play is optional.

(3.25) Movement Phase: Each player may move his counters on the board (see **Section 9**). Movement is optional.

(3.26) Combat Phase: Each player may explore or fight battles (see **Sections 10 and 11**). Combat is optional. Sort of.

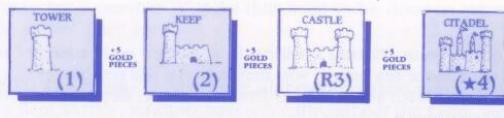
(3.27) Construction Phase: Each player may build forts (**Section 12**). Construction is optional.

(3.28) Special Powers Phase: During this phase the Master Thief and the Assassin Primus may use their special powers, if they are in the game (see **Special Characters: Powers and Abilities** in the pull-out). Use of special powers is optional.

(3.29) Changing Player Order: The second player becomes the first player (see **3.1**). Changing player order is mandatory.

You can only build a citadel during your part of a Construction Phase. You need to already own a castle, have an *income* of 20 (or 15 in a two- or three-player game), and pay 5 gold. See **Section 5**.

BUILDING A CITADEL



Income must be 20 gold (or 15 in 2 or 3 player game)

GR- GV-02

GR- GV-03

GR- GV-04

(4.11) You may not build a citadel if you already own one (whether you conquered or built it).

(4.12) You don't actually receive income during the Construction Phase, you simply count up your income to see if you're eligible to build a citadel.

(4.13) Once built, a citadel can only be lost by conquest. You do not lose it if your income dips below 20 (or 15 in a two- or three-player game).

(4.2) Winning with a Citadel

Citadels are big. Citadels are impressive. Citadels are what allow a minor noble to rise above his fellows to become Emperor.

GR- GV-05

GR- GV-06

GR- GV-07

GR- GV-08

If you are the first player to build a citadel and no one else builds one by the end of the next Construction Phase, you win - hooray! If someone else builds a citadel before then, the game can only be won by conquest - curses! (see below).

(4.21) Once two or more citadels are on the board, players can only win by conquest. This means you need two citadels to win - double curses! A player wins immediately upon capturing a second citadel. (Since you can only build a citadel if you don't already own one, your second citadel must be captured from another player).

(4.22) If there is only one citadel on the board and you capture it from its present owner, you must hold it until the end of the Construction Phase of the *next* turn in order to win, just as though you had built it.

(4.23) If you build a citadel and then lose it to another player, you may build another citadel (since you can build one if you don't currently own one) as long as you meet the income requirements as usual.

4 WINNING THE GAME

The object of **Kings & Things*** is to reunite the kingdom of Kadab under your wise and benevolent rule. Whoever can prove his ability to rule will certainly gain the undying gratitude of the killer penguins and ravaging pixies everywhere and be crowned the new Emperor of Kadab. The proof lies in the ability to build and/or capture the very impressive fortified structures known as citadels.

GR-GV-01

(4.1) How to Build a Citadel

There are four fort levels. In size order, they are: tower, keep, castle and citadel. Starting with a tower, you will eventually increase the fort in size until you have constructed a citadel (see **Section 12**).

5 GOLD AND INCOME

Gold pieces are nifty things to have. They can be spent to gain special characters, recruit Things, build forts, and bribe defenders during exploration. You get these wonderful, shiny trinkets during each Income Phase. You can also gain gold pieces by playing treasures drawn from the cup or captured during exploration.

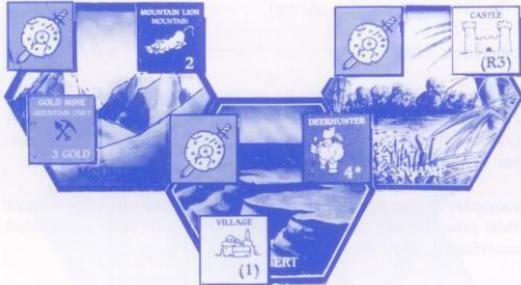
(5.1) Income

Each turn during the Gold Collection Phase, you receive as many gold pieces as your *income*. Income is the net worth of your kingdom, determined by certain things you control (see below). Treasures turned in for gold do *not* count as income.

GR-GC-01

Income is determined as follows. You receive:

- ★ one gold piece for each land hex you control, plus
- ★ as many gold pieces as the combat value of each fort you control, plus
- ★ as many gold pieces as the printed value of each special income counter you control *on the board* (see below), plus
- ★ one gold piece for each special character you control.



This Player's income is 11	
3 Control	= 3
1 Village	= 1
3 from mine	= 3
3 from castle	= 3
1 from special character	= 1

(5.2) Gold Counters

11

When you gain gold pieces, take gold counters from the bank and place them in front of you. You can't hide your gold from the other players - keep them in full view at all times. Note that some gold counters are backprinted with different values - don't accidentally flip them. **Important:** Gold counters are never put in the cup, on your rack or on the board.

GR-GC-02



(5.3) Treasure Counters

GR-GC-03

Treasures include such things as pearls, diamonds, and treasure chests. Treasure counters can be drawn from the cup or captured during exploration (see 10). Place them on your rack and play them when you need additional gold pieces.

To play a treasure counter, display it and take the printed number of gold pieces from the bank. The treasure counter is returned to the cup. A treasure counter may be turned in at any time. **Important:** Once taken from the cup or captured during exploration, treasure counters are never placed on the board.

★ Treasure counters are useful because they disguise your true wealth and are harder to lose than gold. However, since you may not have more than 10 counters on your rack (see 7.4), you may not be able to hold them as long as you wish.



TREASURE COUNTER

(5.4) Special Income Counters

There are ten special income counters keyed to specific terrain (see 2.17). In addition, there are twelve city/village special income counters which can be played in any land hex.

GR-GC-04



6 SPECIAL CHARACTERS

Special characters are the amazing and adventurous heroes of *Kings & Things**. They're pretty powerful, too. Two different special characters are printed on opposite sides of the same counter, but only one is used at any given time (see the pull-out). Each turn you may try to add one new special character to your army.

(6.1) Obtaining a Special Character

GR-SC-01

How do you go about getting such august personalities as Deerhunter, the Grand Duke and Ice Lord to join your cause and lead your armies?

During the Recruiting Special Characters Phase, choose one unowned face-up special character from near the bank and roll two dice (see the pull-out for a list of the special characters).

Double the character's combat number and compare this number to your die-roll. If you roll *greater than or equal to* the number, you gain the special character. Otherwise he remains unowned unless you spend gold (see 6.2).

(6.2) Using Gold to Modify the Roll

Money talks in this game! Before or after rolling the dice, you can spend gold pieces to modify the die-roll.

- ★ For every 5 gold pieces spent *before* rolling, you can add one to the roll.
- ★ For every 10 pieces spent *after* rolling, you add one to the die-roll.

Example: You want to add the Dwarf King (combat value of 5) to your army. You need to roll a 10 (twice 5) on two dice. You spend 10 gold pieces to add 2 to your roll. The dice fall and the result is 7. You add the 2 for the gold spent, making the total 9. You're still 1 short. You can end your phase or spend 10 more gold, adding 1 to get to the King.

GR-SC-02

(6.3) Special Character Abilities

Many special characters have individual powers, their counters are marked with an asterisk. Swordsman and Marksman also have special abilities and *ought* to have asterisks after their combat values. These are described in the pull-out section of these rules.

(6.4) Discharging Special Characters

Before rolling in the Recruiting Special Characters Phase, you may *discharge* (return to the unowned pool) any or all special characters in your army. This is one way to make other special characters (the ones on the face-down side) available. You may also want to discharge a Terrain Lord to make room for another one in your rag-tag army. (Only one Terrain Lord may serve in your army at any given time). Just flip it over when you return it to the pool.

(6.5) When Special Characters Flee

When a special character is eliminated, he flees back to the pool of unowned special characters next to the bank. He can be recruited by any player, starting with the next Special Character Recruitment Phase. The player who lost the special character may turn the counter over before returning it, making a different hero available.

GR-SC-03

7 RECRUITING THINGS

During the Recruiting Things Phase, you add new creatures to your army by drawing counters from the cup. There are three ways to acquire new creatures: *free recruits*, *paid recruits*, and *trade-ins*.

Note: Three methods are used during this phase. Figure your free recruits, paid recruits (a maximum of five), and your trade-ins (a maximum of five) and take them all from the cup at once, remembering to pay your gold and discard traded counters. This ends the phase.

(7.1) Free Recruits

You get one free recruit for every two land hexes you control, rounding up (so, for example, you will get two free recruits on the first turn of the game). Simply draw this many counters from the cup.

(7.2) Paid Recruits

At the same time, you may pay gold pieces to the bank to buy recruits for your army. For every 5 gold pieces you spend, you may draw one additional counter. No more than 25 gold pieces may be spent to buy recruits in any one turn.

(7.3) Trades

Also at this time, you may exchange unused counters from your rack for new recruits and Things. For every two counters you return to the cup, you may draw one additional counter.

- ★ Display all counters you wish to trade in. Draw the full number of Things you are allowed for the phase. Then return the traded counters to the cup.
- ★ You may trade in any unplayed Things on your rack, regardless of type.

Example: Your kingdom consists of five hexes, you have 40 gold pieces, and you have five counters on your rack. You receive three free recruits for your land holdings, you can spend 25 gold pieces for five additional recruits, and you can trade four of the counters on your rack for two additional recruits, making a total of 10.

Note: The Exchanging Things portion of the initial set-up (on a one-for-one basis) can only be done at the start of the game (see 2.18). After the game has begun, the only time you may trade in Thing counters is during the Recruiting Things Phase (according to the rules above).

(7.4) Rack Limit

There is a limit to what your racks can hold. After drawing all recruits and placing creatures on the board (see Section 8), you may not have more than 10 counters on your two racks. This limit is always in effect.

GR-RT-04

8 HOW TO DEPLOY YOUR RAG-TAG ARMY

The total force of all your creatures and special characters on the board is known as your *rag-tag army* (don't ask us why - Kadab's a funny place).

(8.1) Special Characters

As soon as you recruit a special character, you must place it in a hex you control. Special characters cannot be placed on your rack and are always played face up. (After all, heroes are too important to be kept out of the action and too brave to languish in hiding).

(8.2) Things

(8.21) Magic, Events, and Treasure: Once taken from the cup or captured during exploration, magic, event, and treasure counters are never placed on the board. Instead they remain on your rack until you wish to use them (see Sections 5, 14 and 15).

(8.22) Cities and Villages: City and village special income counters may be placed face up in any hex you control which does not already contain another special income counter.

(8.23) Other Special Income Counters: Other special income counters include Oil Fields, Farmlands, and Diamond Fields, among others. They add wealth to your coffers and increase your level of income. They can only be placed (face up)

GR-RT-01

GR-RT-02

GR-RT-03

GR-DT-01

GR-DT-02

GR-DT-03

in the terrain hex indicated on the counter. Special income counters are *not* affected by the Terrain Lords (see Section 6 and the pull-out).

Example: Oil fields may only be placed in a frozen waste hex, farmland in plains, and diamond fields in deserts. Having the Ice Lord will **not** allow you to place the oil fields in the mountains.



The FARMLANDS counter is played correctly, in Plains. The Elephant's Graveyard may never be played in mountain, despite the presence of the Jungle Lord.

GR-DT-04

(8.24) Creatures: Each creature in the land of Kadab has certain basic needs - special food, letters from home, the knowledge that it is fighting for home and thinglings - things which only the right terrain or a Lord who understands the creature can give. That's why you must own a hex of the right terrain or have the right Lord to use a creature properly. Oh, you can recruit a creature without this, but it will pine for its own homeland, and its allegiance will be fragile indeed.

GR-DT-05

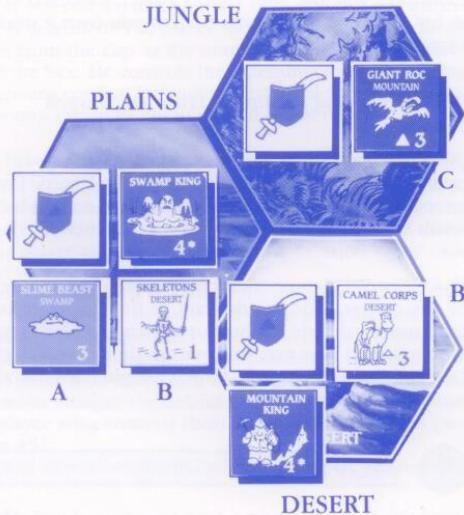
Creatures may be played *face down* in any hex you control. A creature is a *bluff* if you don't own a hex of its terrain type, and is real otherwise.

To survive and be real, a creature needs *support*. Support is the basic stuff that every creature must have to thrive, lead meaningful lives, and build strong bodies eight ways. Creatures can be supported two ways: by hexes, and by Terrain Lords.

GR-DT-06

A hex supports all creatures of its terrain type, anywhere in your kingdom. So, for example, if you own a swamp hex, all of your swamp creatures are supported, wherever they may be.

Terrain Lords are special characters (see 6 and the pull-out). Each is printed with the name of the terrain type. If you have a Terrain Lord, any creatures of his terrain *in the same hex* as he is are supported. For example, if you had the Swamp Lord, any swamp creatures in his hex would be supported - but swamp creatures elsewhere would *not*.



Counter "A" (the slime beast) is a supported counter, because it is in the same hex as the Swamp King. (The Swamp King does not require support.) Both counters marked "B" (the Skeleton and the Camel Corps) are supported, because the player owns at least one hex of their type. Only counter "C" is a bluff, as the player owns no mountains, and the Mountain King is in the wrong hex.

(8.3) Bluff Creatures

Bluff creatures (those creatures which aren't supported by a terrain hex of their type or the appropriate Terrain Lord), can move, explore, initiate combat, and so on, just like supported creatures. A bluff creature remains in play *until it is flipped face up*. (This usually happens when combat is about to begin.) At the instant this happens, any of the other players can demand its removal.

But if no one notices that the creature is a bluff it stays in play and can still fight. When someone finally notices that it's a bluff, it is removed - unless it has already been flipped face down.

If you have a bluff creature on the board and acquire a hex of its terrain type (or the right Terrain Lord), it's no longer a bluff - it is now supported, and isn't removed if flipped face up. Conversely, supported creatures can become bluffs if you lose a hex or Terrain Lord.

Example: One stack of counters in your army is made up of dervishes, nomads and old dragons - all desert creatures. You don't own a desert hex or the Desert Master, so they are all bluffs. If you capture a desert hex during the first battle of a Combat Phase, the creatures are supported for all subsequent battles.

Example: During a battle you lose your last desert hex. All of your desert creatures are now bluffs.

GR-DT-07

GR-DT-08

Example: You lose your Desert Master. All desert creatures in his stack are now bluffs (unless you own a desert hex somewhere).

(8.4) Removing Counters from the Board

(8.41) Creatures may *never* be taken off the board voluntarily. Once played, they remain on the board. Creatures are only removed if they are discovered to be bluffs, as a result of combat, or due to random events.

(8.42) Special income counters *may* be voluntarily removed by the owner. (You might want to do this to make room for a more valuable counter or to deny resources to an invading army.) This may be done anytime *except* during the Combat Phase. Removed counters are put back into the cup, *not* back onto your rack.

9 MOVEMENT

This is the way creatures get from place to place in *Kings & Things**. During the Movement Phase, all creature and special character counters in your army may move. Forts, special income counters, and control markers (except those marking your army stacks) never move.

GR-MP-01

(9.1) Movement Speed

Each creature and special character in your army may move up to four hexes each turn.

GR-MP-02

(9.11) Each swamp, mountain, forest and jungle hex counts as two hexes when moving. All other hexes count as one hex.

Example: A creature can move through two '2' hexes, one '2' hex and two normal hexes, or four normal hexes in a turn.

(9.12) Don't count the hex where your creature starts when moving, but do count the hex in which it ends its move.

GR-MP-03

(9.13) Creatures may move individually or in stacks, dropping off and picking up counters anywhere along their movement range.

(9.2) Movement Restrictions

GR-MP-04

(9.21) You may only move your counters during your part of the Movement Phase (*exception:* retreats, see 11.6).

GR-MP-05

(9.22) No more than 10 of your creatures can end movement in the same hex. Control markers, special income counters, and forts *do not* count towards this limit. Special characters do.

★ This restriction doesn't limit a hex to 10 creatures. It limits it to 10 *friendly* creatures. There could be four stacks of 10 creatures in a single hex, each controlled by a different player.

(9.23) If your creatures begin a Movement Phase in the same hex as enemy counters (all other players are considered your enemy), they are *pinned*, and may not leave the hex. Also, your creatures must stop moving as soon as they enter a hex occupied by face-down enemy counters, or by face-up enemy counters which have a *combat value*. A combat value is the number Things need to roll to inflict hits upon the enemy. It is the number located in the lower right-hand corner of the counters. Special income counters (other than cities and villages) don't have a combat value and do not participate in combat.

★ Your armies cannot be pinned by bluffs. At the beginning of your move, you may ask the player whose counters are pinning you to reveal at least one supported creature. If he refuses (or can't), your army may move normally.
 ★ Bluffs *can* force your creatures to stop moving.

(9.24) Each counter or stack of counters must finish moving before any other counter or stack may move.

(9.25) Only flying creatures may move onto a sea hex, and they are not allowed to end their movement on one. If, for any reason, a creature or stack of creatures ends its move on a sea hex, they are immediately returned to the cup. (Exception: see magic explanations the Balloon and the Fan, in the pull-out).

(9.3) Flying Creatures

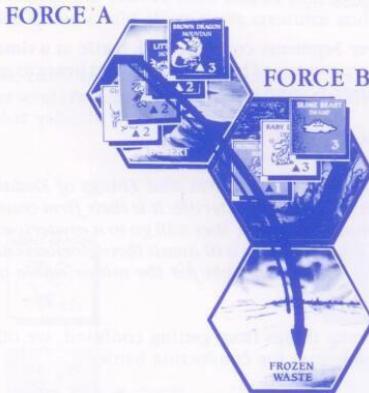
Not all creatures in Kings & Things are land-bound. While walking may be a fine way for walruses, elves and the Marksman to get around, vampire bats, pixies and Ghaog II will stick to the skies, thank you!*

Flying creatures can fly over enemy-occupied hexes. These creatures are marked with the ▲ symbol.

GR-MP-06

(9.31) When a stack of creatures moves into, or wishes to leave, a hex that contains face down enemy counters or face up enemy counters with a combat value, your flying creatures may continue moving, *provided there are no enemy flying creatures in the hex*.

★ You must reveal all flying creatures you wish to continue moving (bluff creatures could be removed if discovered at this time).
 ★ The enemy player has the option of revealing any or all of his flying creatures in the hex (bluffs could be removed).
 ★ You must leave behind as many of your flying creatures as the number of flying creatures your enemy reveals. Others may continue on their way. This procedure must be repeated for each enemy-occupied hex your flyers enter.
 ★ You may not enter or pass through a hex that contains the maximum number of friendly creatures because the moment you enter the hex to fly through, the limit of 10 is exceeded.



Player A's force of 4 flying creatures enters B's hex. A announces (and reveals) his four flyers and states he wishes to continue movement. B chooses to reveal both (he could have chosen to reveal one or none) of his flying creatures.

2 of A's flyers must remain in the forest hex, but the other two may continue onto the frozen waste hex.

(9.4) Movement into Enemy or Unexplored Territory

Important: Whenever a stack of your creatures enters enemy or unexplored territory, mark it by placing one of your control markers on top of the stack.

(9.41) Remember that enemy controlled hexes do not halt your army's movement. Only enemy units with combat values do (creatures, special characters, forts, cities, or villages).

(9.42) Counters that move into *unexplored territory* (unowned hexes, see 10) must stop moving.

(9.43) You can conquer any *enemy hex* without a battle if any of your counters end the Movement Phase there and the hex contains no enemy counters with combat values. Just replace the control marker with one of your own.

GR-MP-07

10 EXPLORATION

Who knows what vile monsters lurk in the wilds of Kadab? Or what treasures there are to be discovered? What magic items to be found? There's only one way to find the answers to these all-important questions. Send your rag-tag army out to explore!

GR-EP-01

When one of your armies enters an uncontrolled hex, it must end movement there. During the Combat Phase it explores the hex and finds out what strange and wonderful (and possibly dangerous) things it has encountered. It is possible to conquer a hex without a fight, but you could meet creatures you have to bribe or battle.

(10.1) Determining the Defence

(10.11) When you explore a hex, roll one die. If you roll a 1 or 6, the hex is undefended and captured without a fight. Place a control marker (the one on top of your stack will do nicely) to show that the hex is now part of your growing kingdom. Counters used to explore an undefended hex are *not* flipped over - so bluff creatures can be used for exploration.

GR-EP-02

(10.12) If you roll anything but a 1 or 6, the hex you are exploring *is* defended. The player to your right draws as many counters from the cup as the number you rolled and places them in the hex. He controls the defending creatures during the up-coming combat. Defending creatures do not require support; swamp creatures could defend a desert hex.

GR-EP-03

- ★ If a special income counter is drawn, it is returned to the cup unless it is keyed to the hex terrain, or is a city or a village.
- ★ If more than one playable special income counter is drawn, the counter(s) with the lowest income value is returned to the cup. The player to your right makes the decision in the case of equal values.
- ★ If a treasure is drawn and the exploring player captures the hex, he may take the treasure and place it on his rack.
- ★ If a magic item is drawn and there are no defending creatures with combat value in the hex, the explorer may take the magic item and place it on his rack. If there are defending creatures, cities, and/or villages, the defending forces may, at the option of the player who controls them, use the magic item(s) (see Section 15).
- ★ Random events are immediately returned to the cup.

Example: You have moved your Arch Cleric, troll, elk herd, and witch doctor into an unexplored swamp hex. You roll a five and the player to your right (who will serve as the defender) draws that many things from the cup. The draw includes an oil field special income counter, a diamond treasure counter, the magic sword, a white dragon, and a giant ape. The oil field is not keyed to the swamp, so it is immediately returned to the cup and the defender decides to let the ape use the sword. Next you may try to *bribe* (see 10.2) the defenders or go on with the battle.

(10.2) Bribery

You may *bribe* defending creatures.

(10.21) You may bribe a defending creature, city or village by paying as many gold pieces as its combat value. Bribed creatures return to the cup without putting up a fight. A bribed city or village is 'neutralized' (see Section 11). You may, if you wish, bribe some but not all of the hex's defenders.

Important: If the defending force contains treasure, magic and/or special income counters, then the cost to bribe *any* counter in the force is doubled.



This player rolled a "4" for his exploration, and the player to his right drew the following force. The exploring player could bribe this entire force for 18 gold pieces, or, for instance, just pay 4 gold pieces to bribe the Bears. Costs are doubled because of the active special income counter.

(10.22) If you bribe all creatures, cities and villages in the hex, you get any treasure and unused magic items they were guarding.

(10.3) Fighting the Defenders

If there are still defenders in the hex, combat is resolved (see **Section 11**). All attacking creatures (yours, silly) are turned face-up, and bluff creatures are removed if noticed.

If you retreat from combat, surviving defenders remain face-up in the hex, ready to fight the next minor noble who comes along. Once the defenders have fought for at least one combat round, they cannot be bribed, even if a different player's army attacks. They may never retreat, and will instead fight to the last... um... man.

(10.4) Replenishing Defenders

If you attempt to explore a hex already occupied by defenders (ie, some other player tried to conquer the hex and failed) you must fight those defenders. You may not bribe them, and no die is rolled as in **10.1**.

If both the defending and attacking forces are eliminated in combat, the hex remains unexplored. Any player who later explores the hex must roll for defenders as described in **10.1**.

11 COMBAT

The player who finally emerges as Emperor of the lands of Kings & Things is more than just brilliant, well loved, and devoted to the good things in life. The victorious minor noble also has a strong army of creatures at his side, willing to battle to the end to uphold Truth, Justice, and a Good Time. Where better to prove such ideals than on the field of combat?*

When counters of more than one player come together in a hex, a battle must be fought to determine ownership of the hex. Each battle is resolved in a series of *rounds*, and continues until all but one side has been vanquished or retreats.

(11.1) The Combat Phase

All battles are resolved during the Combat Phase - including ones triggered by exploration.

(11.2) The Player Segment

Each Combat Phase is divided into *Player Segments*. Each player (in player order) announces and resolves any *one* battle. He may announce a battle in any one hex where he and another player have counters, or he may announce that he is exploring any one unexplored hex where he has counters. In the latter case any battle with defending creatures is resolved in the same segment.

(11.21) The owner of the hex where combat takes place is called the *defender*. If the hex is an unexplored one, the defensive creatures are the defender. The other player(s) are called *attackers*.

(11.22) If you have no battles to resolve or hexes to explore, your segment is skipped.

(11.23) If your units are involved in more than one battle or exploration, you may only resolve one per Player Segment.

(11.24) You must resolve one battle or exploration during each Player Segment that you are eligible to do so. You may not voluntarily pass.

(11.25) Player Segments continue, one battle at a time, until all players have run out of battles to fight and hexes to explore. Then the phase is over (phew!).

(11.3) Battle Rounds

Historical Note: *The creatures and things of Kadab have an interesting view of the afterlife. It is their firm conviction that if eliminated in battle, they will go to a mysterious place called The Cup. There they will await their glorious call back to Kadab to once again fight for the minor noble of their choice.*

In order to keep things from getting confused, we offer the following guidelines for conducting battle.

- ★ When a battle begins, take the counters involved from their hex and place them off to the side of the board. Place a battle marker in the contested hex.
- ★ In battle creatures use magic, missile and melee to attack the opposing forces. In *Kings & Things** there is no bloodshed - all defeated creatures wander back to the cup, to be called into service again during the Recruitment Phase. Such creatures are called 'eliminated'.

(11.31) Battles are fought in a series of rounds, each of which consists of the following steps:

- 1) Magic:** You and your opponent(s) roll for all creatures printed with the ★ symbol.
- 2) Ranged:** You and your opponent(s) roll for all creatures with the R symbol.
- 3) Melee:** You and your opponent(s) roll for all other creatures.
- 4) Retreat:** First the attacker and then the defender has the option to withdraw from the hex, ending the battle. If both attacker and defender decide to stay, go back to the first step. Otherwise, read below. (For multiple combat, see **11.8**.)
- 5) Post-Combat:** The player who wins the battle makes sure his control marker is in the hex, then checks to determine whether forts and special income counters are damaged or lost (see **11.72**).

(11.4) Rolling for Hits

In each of the three combat steps (Magic, Ranged and Melee), different types of creatures roll dice to inflict hits on the enemy army. The basic procedure is the same for each type.

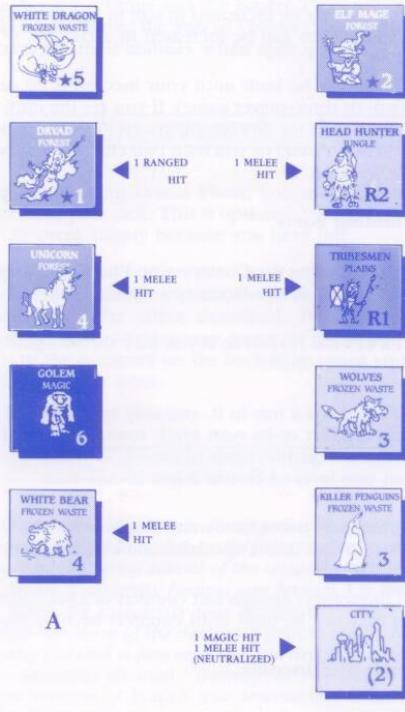
(11.41) You roll one die for each creature *except* those with a C printed on their counters. C signifies a Charging creature which uses two dice. If the number rolled for a creature is *equal to or less than* its combat value, one hit is inflicted on the enemy army. C creatures can inflict two hits, since they roll two dice.

Example: Your walrus and white knight meet a mountain man and a nomad on the field of battle. You roll one die for the walrus, two dice for the knight (a C creature). You need to roll less than or equal to 4 for the walrus (that's its combat value) and 3 for the knight. The knight gets two die rolls. If the knight rolls 3 or less on each die, he inflicts two hits on the enemy.

GR-CP-11

Note: A few creatures have combat values of six. These hit automatically, but the die must still be rolled. (The Talisman or Black Cloud could affect these creatures and their rolls).

* Forts, cities and villages have combat values equal to their current level (For example, a city which has taken one hit has a combat value of 1). See **Section 12**.



Player A rolls a 3 and a 2 in the magic step, Player B rolls a 4. Player A scores one hit, which Player B takes from the City.

Player B rolls a 4 and a 1 in the ranged step, for one hit. Player A removes the ★1 creature.

In melee, Player A rolls a 4, 4, 4, scoring 3 hits. Player B rolls a 2, 2, 2, scoring only 2 hits (the city was reduced to a combat value of 1). Losses are taken as shown. Player A retreats.

(11.5) Applying Hits

During a Combat Step, you and your opponent roll for all creatures which can fight in that step, before either side suffers any losses. After losses are applied the next step begins.

Example: During the Magic Combat Step, all of your magic creatures roll, and so do your opponents. If hits are inflicted, they are applied after all magic creature die-rolls, but before moving to the Ranged Combat Step. If you choose to apply a hit to a ranged creature it is returned to the cup and won't get to fight in the Ranged Step.



This player rolls a "4". He has a fort (in this battle only) of strength ★4.

(11.51) After the number of hits your forces suffer has been determined, you decide which of your counters are damaged or removed.

(11.52) If a creature or special character (except the Sword Master, see the pull-out) takes a hit it is eliminated. A fort, village or city can take as many hits as its combat value. If it takes that many it is neutralized. If it takes fewer hits, mark the counter with a gold piece or a die showing the number of hits it has taken.

(11.53) When a counter is neutralized, flip it over. It is not destroyed, but it can no longer participate in the battle.

* Forts, villages and cities which take fewer hits than their combat value continue to fight, but at their reduced strength. Castles and citadels do not lose their R and ★ status.

* See **Section 12** for more details about forts in combat.

(11.6) Retreats

Is the fight going badly? Did the hex you decided to liberate from your opponent contain one surprise too many? Well, discretion is the better part of violence, or something like that.

At the end of each combat round, the *attacker* (the player who doesn't own the hex) has the option to retreat, ending the battle. If the attacker decides to stay and fight, then the defender (the owner of the hex) has the option to retreat.

To retreat, move your counters to an adjacent hex you control which is not currently occupied by enemy counters. If no such hex exists, your force may not retreat; it must stay and fight.

When a force retreats, all friendly creatures and special characters in the battle hex must retreat together into the same hex. If that hex then contains more than 10 friendly creatures, the excess are removed (see **9.2**).

If there are more than two players involved in the same battle, see **11.8**.

Note: Only creatures and special characters may retreat; forts and special income counters must be left behind. They may continue to fight alone if they have not been neutralized.

* The defenders of a previously unexplored hex may not retreat.

(11.7) Post-Combat

What happens once the dust settles over the battlefield and the combat is decided? Well, after all but one side has been eliminated or forced to retreat, ownership of the hex and the status of the forts, cities, villages, and other special income counters must be determined.

(11.71) If all attacking counters are eliminated or forced to retreat, the hex remains the property of the defender, even if all defending counters were eliminated or neutralized.

GR-CP-12

GR-CP-13

GR-CP-14

If the defending forces are eliminated, neutralized or forced to retreat and at least one attacking counter remains, the attacker captures the hex. He replaces the control marker with one of his own.

(11.72) After the battle, check each fort, city, village, and other special income counter in the contested hex to see if it was damaged (regardless of whether it was used to absorb hits or even if no hits were inflicted in the battle). Roll one die for each counter. On a roll of 2 through 5 there is no damage. On a roll of 1 or 6, the city, village or special income counter is destroyed (return it to the cup) or the fort is reduced one level (castle to keep, keep to tower, tower eliminated).

Important: Citadels are never reduced or destroyed.

(11.73) The reduction in value suffered by a special income counter or fort in the course of a battle lasts only as long as the battle (unless you roll a 1 or a 6; see **Section 11.72**); once the battle is over, flip all surviving neutralized counters back over and remove any gold pieces or dice you used to indicate hits.

(11.74) After you capture a hex, you may immediately place any counters from your rack on that hex (see **Section 8**).

(11.8) Multiple Combat

It is possible for the armies of more than two minor nobles to fight over the same hex. Talk about lots of fun. Multiple combat involves two or more players forces coming together in another player's hex.

GR-CP-15

(11.81) During each *round* (not step) of such a battle, each player must declare which *one* player he will try to inflict his hits on. Each player must fight someone in every round.

★ A player may change the target of his combat each round, but not while a round is in progress. If you fight Minor Noble C in your Magic Combat Step, you must continue fighting him until your next Magic Combat Step. Then you can declare another target. Declarations should be made simultaneously (or written down).

(11.82) Players may retreat individually, leaving the others to continue the battle (though this may illicit jeers from the other players). The attacking player to the left of the defender has first option to retreat, followed by each other attacker in player order. Then the defender may elect to retreat. The battle continues until only one player is left alone in the hex.

GR-CP-16

(11.9) Fighting Over Explorations

What? Your force of killer puffins and flying squirrels has entered a hex to explore it for your kingdom and - horrors! - they've run into Minor Noble D's army of dwarves and mountain men! This presents a problem. Read on.

If two or more competing armies occupy the same unowned hex, a battle ensues. It must be fully resolved before the sole remaining army may explore the hex. If all creatures are eliminated in the combat there is no exploration. When only one army remains in the hex, roll for defenders and conduct exploration as usual.

(11.91) In the case of multiple players fighting over the same unowned hex, the attacker is considered to be the player who initiates the combat.

(11.92) The defender in multiple combat over an unowned hex is the player to the right of the attacker. If he has no counters in the hex, then the next player to the right is the defender.

12

FORTS

Towers, keeps, castles and citadels are collectively called *forts*. Unlike most other counters, forts are not drawn from the cup. They are instead built during a Construction Phase. A tower is the smallest level of fort and is the first piece you can build. It can subsequently be increased in size to a keep and then a castle. A castle then can be increased to a citadel.

A citadel may not be built until your income is 20 or more (15 in a two- or three-player game). If you are the only minor noble with a citadel for one complete turn (Construction Phase to Construction Phase) or you own two citadels, you win the game (see **Section 4**).

(12.1) Building Forts

Forts are built during the Construction Phase. You may build forts in any or all of the hexes you own.

GR-FP-01

(12.11) If a hex has no fort in it you may spend 5 gold pieces and build a tower there.

GR-FP-02

(12.12) If a hex has a fort in it, you may spend 5 gold pieces to upgrade the fort to its next level: tower to keep, keep to castle, and (if you qualify) castle to citadel. You may never build more than one level of fort in a hex in one turn.

GR-FP-03

(12.13) A hex may never have more than one fort in it. It can contain both a fort and a special income counter, though.

GR-FP-04

(12.14) If there aren't enough fort counters of a particular level, that level may not be built until counters become available.

(12.2) Forts and Income

Forts provide income for your kingdom each turn. You receive as many gold pieces as the total level of forts in all hexes you control. You may never sell forts.

GR-FP-05

(12.3) Forts In Battle

Yes, your forts can help your army of dinosaurs, buffalo, and elephants in battle!

A fort's level is also its combat value. Forts roll to inflict hits as though they were creatures (and with all that magic floating around, they just might be!).

GR-FP-06

★ Towers and keeps have combat values of 1 and 2 respectively. Castles have a ranged combat value of 3 (notice the **R** on the counter); citadels have a magic combat value of 4 (see **Section 11**). Even if a castle or citadel takes hits, it still attacks as an **R** or ★ unit, regardless of its current combat value.

(12.4) Forts Taking Losses

Forts, like cities and villages, have parenthesized combat values (that means they're in brackets). This indicates that they can take multiple hits instead of being eliminated by a single hit the way creatures are.

13 SPECIAL CHARACTER ABILITIES

GR-SCA-01

Some special characters are useful because they have the same sorts of abilities as creatures, only more so. Others have special powers. These special powers are described in the pull-out section (have you pulled it out yet? - no? well go and do it then!). A summary of these powers is printed on the back of the pull-out as well.

- ★ The Assassin Primus and the Master Thief only use their special powers during the Special Powers Phase. Other special characters use their abilities when appropriate.

14 RANDOM EVENTS

GR-RE-01

During the Random Events Phase, you may play one event counter from your rack. This is optional; you are not required to use an event simply because you have one.

When you play a Random Event, find it in the list in the pull-out and apply the effect described. Don't worry about memorizing all these rules now, just refer to the pull-out section (or to the summary on the back of it) when you need to see what an event does.

15 MAGIC

GR-ME-01

Historical Note: Magic was developed in the far-off land of Irlax and brought to Kadab by the famous magician Yazilik. He established a great school of the wizardly arts and named it Yazilik University (mages are known for their giant egos). When the university was accidentally destroyed (the fanatical members of the declining priesthood of Sulugi accidentally pointed a powerful temple artifact at the school and accidentally shouted "Destroy the vile wizards!"), not only the terrain of Kadab was irrevocably altered. Many strange and wondrous magic items were scattered throughout the Empire. The minor noble who finds and correctly uses these powerful trinkets may be the one that finally reunites the shattered kingdom.

Then again, maybe not.

The playing cup contains many magic item counters. Each magic item may be used once, and then must be returned to the cup (**exception:** see 7.5). The effects of each item are described in the pull-out; again, don't feel compelled to memorize all of this stuff. That's why we gathered it up and put it there for you to refer to. Aren't we good?

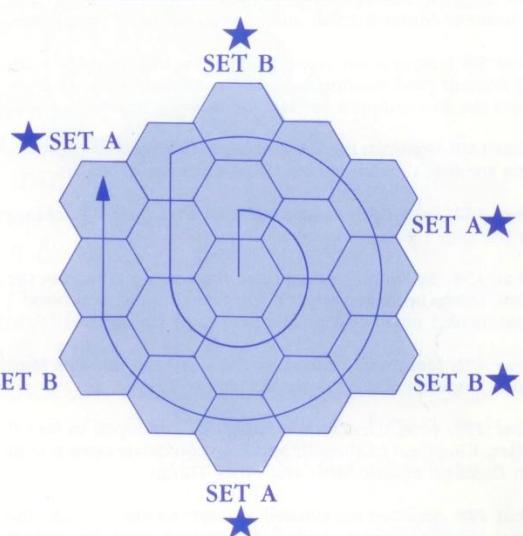
Magic items may be played when appropriate, according to the description of their effects listed in the pull-out.

16 TWO AND THREE PLAYERS

Missing a minor noble or two? No problem! Here's what to do in a two and three player game:

★ Place two hexes of each terrain type and five sea hexes (instead of four) aside before laying out the board. The smaller board layout and starting positions are shown in the illustration.

- ★ In a two player game, the player order does not change at the end of each turn.
- ★ In a two or three player game, the income needed to build a Citadel is 15.



The arrow shows the order in which hexes must be laid out.

Stars indicate starting positions - the first player chooses which set will be used. In a two player game the 2nd player must choose the hex opposite the first.



Kings & Things*

PULL-OUT SECTION

GR-LL-01

SPECIAL CHARACTERS: POWERS AND ABILITIES

A summary of these powers is printed on the back of this pull-out booklet. See Sections 6 and 13 for more rules and information.

Assassin Primus

Historical Note: *The Assassin Primus is the leader of the powerful Assassin's Guild and the granddaughter of the dark assassin who struck down the entire royal family in the Year 253 (leading to the collapse of the Empire). She has the power to eliminate enemy counters without engaging in combat.*

During the Special Powers Phase of each turn, if you control the Assassin you may announce an assassination attempt. Point to any hex on the board. You and the owner of that hex each roll two dice.

- ★ If the other player's roll is greater than yours, the attempt failed. Go on with the game.

- ★ If you both roll the same number, roll again. If you tie or beat your opponent's roll this time, there is no further effect. If the other player beats your roll, the Assassin was caught in the act and leaves your army in shame. Put her back with the unowned special characters (see 6.4).

- ★ If your roll is greater, one character is eliminated from the hex you chose. Now choose a target within the hex. You can choose any one special character or face-down Thing counter in the hex. (Since the Things are face-down, you may not know exactly who - or what - you are assassinating.)

The owner of the hex also chooses a target. Roll a die. On a 1 through 3, your target is eliminated and is returned to the cup. On a 4 through 6, his target is eliminated. If there is only one character or Thing in the hex, no roll is necessary; the single counter is eliminated. The Assassin may not use her ability on a fort or special income counter.

Baron Munchausen

Historical Note: *The Baron is a genius at siege warfare. He is best known for his brilliant take-over of the indestructible Citadel of Everlasting Defense.*

At the beginning of a battle involving the Baron, enemy cities, villages and/or forts (in the same hex) receive one hit. This takes place before any combat rounds are fought.

Deerhunter

Historical Note: *Deerhunter is the most famous explorer and tracker of the age. Even the ever-changing terrain of Kadab rarely slows this stout adventurer down.*

Any counters that begin and end the Movement Phase with Deerhunter may move through all terrain as though it were a movement 1 hex. In addition, the stack of counters may leave an enemy-occupied hex at the beginning of its movement phase (avoiding the troublesome pinning rule; see 9.23), although they must stop upon entering a new enemy-occupied hex.

Dwarf King

Historical Note: *The dwarves arrived in Kadab slightly after the northern nomads did. They saw the worth of the land and thought the weather was nice, so they stayed. Now it is their home (no matter what the weather is like) and they are determined to help re-establish the Great Kingdom (besides there are now too many refugees from war-torn Kadab cluttering up the Dwarf Kingdom; something must be done).*

If the Dwarf King is sympathetic to your cause (and you control him), the gold value of all your mines (special income counters keyed to mountain terrain) is doubled. This increase counts for gold collection and for determining eligibility for building a citadel.

Grand Duke

A distant cousin of Baron Munchausen, his ability is the same (see above).

Marksman

Historical Note: *The Marksman once shot a kernel of corn off a flying squirrel's head, so the legend says. He's never been able to get another one to let him try again, though.*

The Marksman is the only character in the game with two combat values. The 5 value is used when trying to recruit him.

During ranged combat, before rolling for the Marksman's shot, you must decide whether you will use the 5 or the 2 combat value. If you use the 5 the battle is fought as usual. If you use the 2 and hit, you may choose which enemy counter is eliminated (usually it is your opponent's choice).

Master Thief

The Master Thief's ability works like the Assassin's (see above). During the Special Powers Phase, if you control the Thief, you designate another player and you each roll two dice.

- ★ If your opponent's roll is greater, the thievery attempt failed. Go on with the game.

- ★ If you both roll the same number, roll again. If you tie or beat your opponent's roll this time, there is no further effect. If the other player beats your roll, the Thief was caught in the act and leaves your army in disgrace. Place the Thief back in the unowned special character pool.

- ★ If your roll is greater, you may either steal one counter at random from your opponent's rack, or take all of his gold pieces (your choice).

Sword Master

Historical Note: *The Sword Master is a powerful hero who, they say, can outduel whole legions of water buffalo, killer penguins and sand worms. Blindfolded. Really. So they say.*

- ★ When the Sword Master is hit in combat, roll a die. On a roll of 1 or 6, his skill doesn't save him; he is eliminated. On a 2 through 5 he parries the clumsy attack and recovers for the next round. However, the Sword Master may only parry one hit per round. If he takes multiple hits in a single round, he is eliminated.

Terrain Lords, Kings and Masters

Historical Note: *The Desert Master, Forest King, Ice Lord, Jungle Lord, Mountain King, Plains Lord and Swamp Master all have the same ability; they carry around a little bit of their terrain type with them and can use it to support your army.*

- ★ With a Terrain Lord on your side, it is not necessary to control his type of hex. He can support creatures of his terrain type, just as a hex would (see 8.3). So killer penguins, eskimo warriors, and ice rats may survive and fight for you - even if you don't have frozen wastes - as long as the Ice Lord is leading them. However, a Terrain Lord must be in the same hex as the characters he is supporting; he does not support creatures of his terrain elsewhere in your kingdom as a hex would.

Important: The Terrain Lords hate each other. You may not control more than one Terrain Lord at a time. If you are discovered to have more than one, all but one are returned to the special character pool. The player to your right decides which are removed.

Warlord

Historical Note: *The Warlord is mean. He is tough. He's a master in the ways of war. This is important because enemy troops will desert and join his army when they see him coming. Isn't that great?*

- ★ In a battle involving the Warlord, before any combat rounds are resolved, you may designate one creature (not a special character) in the enemy army, and roll one die. If your roll is equal to or greater than the chosen creature's combat value, that creature immediately joins the Warlord's force (even if there are already 10 creatures in the Warlord's stack in the hex). Otherwise there is no effect and combat continues as usual. (If the defending creature can't be supported by the Warlord's player, the other player can demand its removal.)



GR-LL-02

RANDOM EVENTS EXPLANATIONS

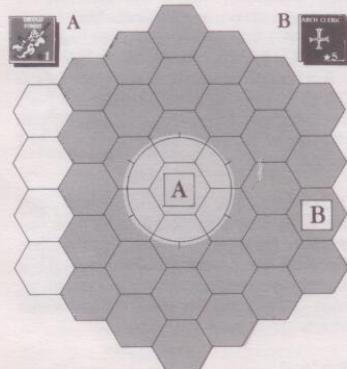
See Section 14 for more rules and information.

Big JuJu

Historical Note: In the Year 188, all looked grim as the terrible host of dragons, led by Gbaog the First, tore its way boldly across the Plains of Kadab toward the final confrontation with the forces of Emperor Nablopal. Just as all looked lost for the kindly citizens of Kadab, a blinding flash of light burst over the land and the vile beasts found themselves up to their ankles (or whatever) in boggy Swamp Land. Wizard Yazilik Big Jujued them.

Big JuJu is a magic spell used to change one hex somewhere on the board to a totally different type of terrain. If you have no magic-using creatures (the ones with the ★ symbol) on the board, you cannot use this event.

You can use the Big JuJu on a hex within your magic-using creature's range. The creature's range is the number of hexes equal to its combat value. Count the number of hexes from the creature to the hex you want to change (including the target hex but not including the magic creature's hex). If the distance is greater than the magic creature's combat value, the hex is out of range and you can't change it.



Counter A has a magic combat value of one. He may use big JuJu on any of the hexes in the dotted circle (including his own hex). Counter B, the Arch Cleric, can affect any of the shaded hexes.

If you are changing a hex you own, you may look through the unused hex deck and replace it with any other hex you choose.

If you are changing an unowned hex or a hex controlled by another player, shuffle the hex deck and draw the top tile. Replace the hex you choose with this one. If you draw the same terrain type as the one you are changing, you may draw again until you have drawn a hex of a different type.

Terrain-dependant special income counters are lost when the hex changes. Return them to the cup. The owner of the hex may immediately place unused counters from his rack in the hex.

If the replacement hex is a sea hex, all creatures in the hex may escape to an adjacent friendly hex. If there are none, the creatures are lost. All forts and special income counters sink to the bottom and are returned to the bank or cup regardless.

Important: A hex containing a Citadel is immune to Big JuJu.

Dark Plague

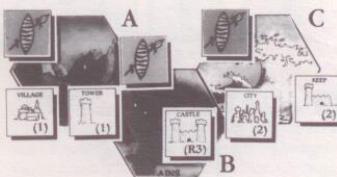
There you are, minding your own business as you conquer... um... reunite the Empire, when out of the clear blue sky a Dark Plague falls upon your overcrowded and unsanitary cities, villages and forts. All around you, your loyal creatures succumb to the awful disease. But hey, this event affects all players!

When this event occurs, every player may lose creatures from every hex he controls. In each hex add up the combat values of all cities, villages and forts in the hex. This is the number of creatures lost from that hex (see example).

Only creatures are affected by the Dark Plague. You can lose cities, villages and forts to satisfy your losses, if you wish, but you don't have to; each city or village counts as one creature, and forts count for as many creatures as they have levels (see 12). Instead of removing a fort you can reduce it by one or more levels; each level counts as one creature.

Example: The Dark Plague occurs. In one hex you have a castle, a city and five creatures. The total combat value of the cities, villages and forts in this hex is 5. That is the number of creatures this hex must lose. You must choose to reduce your castle to a tower for two losses, remove your city for one loss, and remove 2 creatures. Or you can remove all five creatures, or any combination of the above to meet the 5 losses required. After this is done, go on to your next hex and repeat the procedure. Remember, the Dark Plague does not affect hexes that are empty of creatures.

Example: The Dark Plague occurs. In one hex you have a keep, a village and two creatures. The total combat value of the keep and village is three. You are required to lose three creatures, but you have only two in the hex. You can remove them and that will end the Plague in that hex; forts, cities and villages are immune to its effects. However, you may reduce or remove the forts, cities and villages instead of the creatures in order to protect them and keep them in your rag-tag army.



This player must lose 2 counters from hex A, 3 counters from hex B, and 4 counters from hex C.

Defection

You say you need a special character? You say your rag-tag army needs a true hero to look up to? No problem! Get one to Defect to your side.

When you use Defection, you may immediately add a special character to your forces. You can take it from the pool near the bank or from another player.

Decide which special character you want. You and the current owner of that character each roll two dice. (If the special character is unowned pick a player to roll in his interests). If your roll is higher, immediately place the special character in any hex you control (even if he was already on the board). If your roll is equal to or lower than your opponent's, there is no defection. Gold may not be spent to modify this roll.

Good Harvest

You (and only you) immediately collect gold as though this were the Gold Collection Phase, except that you do not collect for special income counters (including cities and villages).

Mother Lode

Immediately collect as many gold pieces as twice the total value of all your special income counters (including cities and villages). Mines are quadrupled if you have the Dwarf King (see Special Characters: Powers and Abilities, earlier).

Teeniepox

Another dreaded disease in the lands of Kadab is Teeniepox. But unlike the Dark Plague, Teeniepox affects only one player. When you cause Teeniepox to occur, choose the lucky player who will be affected.

The player you choose rolls one die. If the roll is 1 or 6, there is no effect. If the roll is 2 through 5, find his largest stack of counters on the board. That stack loses as many counters as the number he rolled.

When deciding which is a player's largest stack, count each village, city and fort in the stack's hex at its combat value. Each creature and special character count as one. If two or more stacks are tied for largest, the player chooses which one is affected.



PULL-OUT SECTION

When removing counters the player *must* reduce forts, cities, and villages to meet losses if he doesn't have enough creatures. The player must match the number rolled, even if he must remove all counters from the affected hex.

Terrain Disaster

Want to cause a neat disaster in Minor Noble-to-your-right's Frozen-Waste hex? Sure you do. And what are some of the nasty terrain disasters you can inflict upon him? In the jungle you can pummel his creatures with a monsoon; level his plains with a Tornado; a sandstorm can wipe out his desert; his swamp can be submerged in a flood; a fire can rage through his forests; an earthquake can rock his mountains; and his frozen wastes can be blanketed by a blizzard. Isn't that neat?

When you play this event, point at a hex (regardless of ownership), and roll two dice.

If the roll is 6, 7 or 8 the disaster occurs in the chosen hex. On any other roll you *must* point to another hex of the same terrain type and roll again. If this roll is a 6, 7 or 8 the disaster occurs here. Otherwise you must point to another hex of the same type and roll again. Continue pointing and rolling until the disaster occurs or you have pointed to all hexes on the board of the chosen type and no 6, 7, or 8 has been rolled (in which case, no disaster occurs). If the disaster doesn't occur in any hex of that type, there is no event.

If the disaster does occur, the player owning the affected hex must roll a die. If the roll is 1 or 6 there is no effect. If the roll is 2 through 5, the player loses as many counters as the number rolled from the affected hex. Forts, villages and cities must be reduced to satisfy the number of losses if you don't have enough creatures, but not citadels.

Vandals

Nasty, obnoxious barbarians from another kingdom show up and trash one of your opponent's forts. Choose your favourite opponent. (This might be a good time to get back at the minor noble to your right). He immediately loses one fort level somewhere on the board (his choice). This loss must be the elimination of a tower or the reduction of a castle or keep. Vandals aren't strong enough to affect a citadel.

Weather Control

Be nice to another player. Cause a wind storm in his desert, a snow storm in his frozen waste, or have torrential rain pummel his plains.

To play this event you need a magic-using creature (one with a ★ symbol) and you must designate a hex within its range (see *Big JuJu*).

Place the *Black Cloud* marker in the chosen hex. The cloud remains in that hex until someone else uses Weather Control

and moves it to another hex or the hex is captured by another player.

While in a Cloud hex, *all counters* belonging to the player who owns the hex have a combat value one less than usual. Counters with a combat value of zero are unable to fight, but can be used to take hits.

Example: A Weather Control event has been played on your mountain hex. The Black Cloud marker is placed in the hex to show that it is affected. In the hex you have a giant roc with a combat value of 3, an ogre with a 2, and a goblin with a 1. Each has its combat value reduced by 1 because of the lousy weather conditions. Now the roc hits on a 2, the ogre on a 1 and the goblin cannot fight at all (it's at zero). Remember, only the hex owner's creatures are affected by the Cloud.

Willing Workers

Your well-paid and happy workers have completed an extra level of fort for you. You may place a tower in any hex you own that does not already contain a fort, or increase an existing fort by one level. You may *not* obtain a citadel with this event, even if you meet the requirements for one.

MAGIC EXPLANATIONS

GR-LL-03

Balloon

The Magic Balloon can only be played during your part of the Movement Phase. The Balloon can carry any three creatures up to three hexes from where they started the phase.

★ All three creatures must begin in the same hex, and may not move normally in that turn. Instead, place the three selected creatures plus the Balloon in the target hex.

★ No creature with a combat value of 4 or more may be transported by the balloon (this includes Special Characters).

★ Creatures riding in the Balloon fight as R creatures during any battle in the turn they move by Balloon, unless and until it is eliminated. They are considered to be dropping stuff down upon enemy creatures. The Balloon fights too, dropping sand bags down on unsuspecting enemy forces. The Balloon is eliminated if it takes a hit. The Balloon and its passengers may retreat to any friendly hex within three hexes of the battle hex *as long as the Balloon is still in play*.

★ The Balloon is returned to the cup at the end of the turn in which it is used, its magic exhausted.

Bow

The Bow may only be used during the Combat Phase. Place it on top of one of your creatures engaged in battle. That creature fights as an R creature for the rest of the battle, and also has its combat value increased by 1. The R rating replaces any other symbol on the counter (eg, a C creature fights as an R creature until it loses the Bow; it attacks during the Range Step and does not use the benefits of its Charging ability).

★ The Bow may be transferred from one creature to another in the same hex during

a battle. Just put it on top of a different creature at the beginning of the next round.

★ The Bow is eliminated if it takes a hit. If the creature wielding the Bow is eliminated, the Bow must be given to a new creature at the beginning of the next round. The Bow is returned to the cup at the end of the battle in which it's used.

Dispel Magic Scroll

This item may be played any time another player uses a magic item or magic creatures. The scroll causes the other player's magic item to have no effect and his magic creatures to fight during the Melee Step. The Scroll affects one magic item and all magic creatures in an enemy force during battle. Its effects last until the end of the battle, but it is returned to the cup when played.

Dust of Defense

Dust of Defense causes an attacking army to retreat from your hex. It may only be used by the defender (see 11.21).

Fan

You may play the Magic Fan when another player uses the Balloon, the Dust of Defense, or Weather Control (the Black Cloud).

★ Using the Fan blows an approaching Balloon off course, sending it into any hex adjacent to its target hex (user chooses which). If it is displaced into a sea hex, the Balloon is lost, but its passengers may escape to a friendly adjacent hex - if there is one!

★ Using the Fan scatters the Dust of Defense, negating its ability. The battle proceeds as usual.

★ Using the Fan displaces the Black Cloud to an adjacent hex or, if the user wishes, removes the Cloud from the board.

Firewall

You may play the Firewall at the start of your battle (whether attacking or defending). When played, roll one die. The Firewall is a magic fort that fights during the Magic Combat Step; its combat value is equal to your die roll. Place the counter in any hex where you are involved in combat. The counter is returned to the cup once the wall is eliminated or at the end of the battle (so use it to take hits before using up creatures!).



This player rolls a "4". He has a fort (in this battle only) of strength ★4.

Golem

This may be played at any time during a battle. The Golem is a mele 6 creature who is immune to damage from ranged creatures. In any Ranged Combat Step, the Golem lessens the number of hits scored against its force. Subtract one from the number of ranged hits applied against the Golem's stack.

Example: If three ranged hits were scored against a stack containing the Golem, only two would have to be taken by creatures.



PULL-OUT SECTION

In addition, if the Golem is the only creature left in the force, hits inflicted by **R** creatures have no effect. Applying a melee or magic hit to the Golem eliminates it, and it always returns to the cup at the end of the battle. However, its presence counts for purposes of determining control of a hex.

Lucky Charm

The Lucky Charm may be played any time a die roll has been made, by you or another player. You may immediately increase or decrease any one die roll by one.

Example: If someone tried to recruit a special character and rolled an 8, the holder of the Lucky Charm could change the roll to a 7 or a 9.

Elixir

This may be played whenever you would be affected by Teeniepox or the Plague. The Elixir cancels any effects against your entire army. It then returns to the cup.

Sword

The Sword is similar to the Bow. Its power is to bestow a **C** rating on any one creature and a +1 to its combat value. This applies even if the creature already has a **C** rating. The charging symbol replaces any other symbol the creature may have, so a creature using the Sword fights during the Melee Combat Step. The Sword is eliminated if it suffers a hit and is returned to the cup at the end of the battle.

Talisman

This item may be played at any time during a battle. The Talisman immediately provides a special saving throw to all of your creatures in the battle. Once you play the Talisman, every time you apply a hit to one of your creatures, you may roll the die. On a 2 through 5, the creature miraculously leaps out of harm's way and is saved to fight again! Wow! On a 1 or a 6, though, the hit is applied as usual and the Talisman is immediately returned to the cup. Each creature gets only one saving throw per Combat Step, so if a creature is forced to take two hits in a single step, it is eliminated regardless of the presence of the Talisman.

★ The Talisman is returned to the cup at the end of the battle.

SEQUENCE OF PLAY

Gold Collection	Movement
Special Character	Combat
Recruitment	Fort Construction
Thing Recruitment	Special Powers
Random Events	Player Order Change

COUNTER ERRATA FOR KINGS & THINGS*

On Counter Sheet B, the 6 treasure counters should be a different colour than the 10 *special income* counters. Treasure and special income counters have totally different functions (see Sections 5.3 and 5.4).

Asterisks on special character counters denote special abilities — above and beyond higher combat values — which are described in the rules (see Section 6.3, 13, and the pull-out). Two special characters — the Marksman and the Swordmaster — should have asterisks. These were left off when printed and you may want to add them to your counters. Sorry about that!

SPECIAL CHARACTERS

ASSASSIN PRIMUS: Can eliminate a creature or special character without combat. Use during Special Powers Phase.

BARON MUNCHAUSEN: Inflicts one hit on all forts, cities and villages in a hex before combat rounds are fought.

DEERHUNTER: Its stack counts every hex as a movement '1' hex; can leave enemy-occupied hex.

DWARF KING: Doubles income from mines.

GRAND DUKE: Same abilities as Baron Munchausen.

MARKSMAN: Use '2' or '5' combat value; use '2' combat value and choose which creature is eliminated if hit.

MASTER THIEF: Steals all gold pieces or one random counter from opponent's rack. Use during Special Powers Phase.

SWORD MASTER: Gets saving throw for one hit applied to him per round of combat; not eliminated on a roll of 2 through 5.

TERRAIN LORDS: Support creatures of their terrain type in their hex. The following characters are Terrain Lords - Desert Master, Forest King, Ice Lord, Jungle Lord, Mountain King, Plains Lord and Swamp King.

WARLORD: Can get one enemy creature per battle to join his side; use before any combat rounds are fought.

LORD OF THE EAGLES, GHAOG II, SIR LANCE-A-LOT, ARCH CLERIC, ARCH MAGE, ELF LORD: These characters have no special abilities. Shame! But they are powerful.

EVENTS

BIG JUJU: Changes terrain type of any hex within range of your magic-using creature.

DARK PLAGUE: All players lose counters equal to combat value of forts, cities and villages in each hex. You may satisfy losses with self-same forts, cities and villages, but are not required to.

DEFECTION: Roll to obtain a special character from unused pool or another player.

GOOD HARVEST: You collect gold, except from special income counters.

MOTHER LODE: Collect double from all special income counters. Quadruple mines if you have Dwarf King too.

TEENIEPOX: One player may lose 2 through 5 counters from his largest stack. Forts, cities and villages must be reduced if necessary to meet losses.

TERRAIN DISASTER: One hex loses 2 to 5 counters. Forts, cities and villages must be reduced if necessary to meet losses.

VANDALS: One player loses a fort level (citadels are immune).

WEATHER CONTROL: Place or move Black Cloud; all friendly counters under Cloud reduce combat value by one.

WILLING WORKERS: Gain one additional fort level (not a citadel).

MAGIC

BALLOON: Flies three characters of combat value 3 or less up to three hexes distance; Balloon and passengers fight during Ranged Combat Step.

BOW: Creature fights during Ranged Combat Step; increases combat value by 1.

DISPEL MAGIC: Enemy magic item has no effect and all magical creatures in the hex fight during Melee Combat Step.

DUST OF DEFENSE: Requires attacker to retreat without combat; only defender may play.

FAN: Cancels Dust; moves Balloon or Cloud.

FIREWALL: Creates a magic fort. Determine combat value by rolling one die.

GOLEM: Takes one ranged hit per round without being eliminated.

LUCKY CHARM: Allows you to increase or decrease any die roll by one.

ELIXIR: Cancels effects of Plage or Teeniepox.

SWORD: Creature fights during Melee Combat Step as a **C** (charging) creature (rolls two dice); increases combat value by 1.

TALISMAN: Gives each creature a saving throw vs. elimination until it fails. Also an exciting game from Games Workshop.



Section 2 - Requirements

2.1 - Functional Requirements

Functional Requirements define the functionality that the system must have, and have been categorized below with relevant traceability to the Game Rules listed in the previous section.

ID	Functional Requirement	Traceability
Game Setup		
FR-GS-01	The System doesn't allow for games consisting of less than or more than 4 players.	A-01
FR-GS-02	Players can choose their starting position.	GR-SG-05
FR-GS-03	Players can choose their two other initial tiles.	GR-SG-06
FR-GS-04	Players can place a tower on one of the tiles they selected in FR-GS-03 and FR-GS-02.	GR-SG-07
FR-GS-04	Players can take their initial 'Things' from the cup.	GR-SG-07
Turn Sequence		
FR-TS-01	Players automatically receive gold based on their current income.	GR-TS-01
FR-TS-02	Players have the option of trying to recruit a Special Character.	GR-TS-02
FR-TS-03	Players can draw from the cup and trade in unwanted 'Things'.	GR-TS-03 A-02
FR-TS-04	Players may use one of their Random Event counters.	GR-TS-04
FR-TS-05	Players may move their Creature and/or Special Character 'Things' around the board.	GR-TS-05
FR-TS-06	Players may resolve any combat caused by the movement phase (FR-TS-05).	GR-TS-06
FR-TS-07	Players may construct additional Forts on tiles they control.	GR-TS-07
FR-TS-08	Players may use the Special Abilities of Assassin Primus and Master Thief (if they are controlled).	GR-TS-08 A-03
FR-TS-09	The Player Order must change.	GR-TS-09
Winning A Game		
FR-WG-01	The System detects when a Citadel has been built.	GR-GV-01 through GR-GV-04
FR-WG-02	The System detects when a Player should win the game.	GR-GV-05 through GR-GV-07
Gold Collection		
FR-GC-01	The System automatically calculates a Player's income.	GR-GC-01
FR-GC-02	The System displays each Player's gold so every Player can	GR-GC-02

	see it.	
FR-GC-03	The System automatically distributes gold any Player who uses a Treasure counter.	GR-GC-03
Special Character Recruiting		
FR-SC-01	Players have the choice of recruiting one Special Character per turn.	GR-SC-01 A-04 A-05
FR-SC-02	The System knows when a Special Character's ability should be activated.	GR-SC-02
FR-SC-03	The System correctly returns defeated Special Characters to the Bank.	GR-SC-03
Normal Recruiting		
FR-NR-01	The System will automatically calculate the number of Free Recruits the Player will receive.	GR-RT-01
FR-NR-02	The System will prevent the Player from paying for more recruits than they can afford.	GR-RT-02
FR-NR-03	The System will calculate the amount of recruits a Player receives when they perform a trade.	GR-RT-03
FR-NR-04	The System will not allow a Player to exceed the Rack Limit.	GR-RT-04
Movement		
FR-MT-01	The System calculates the amount of moves each Creature can make per turn.	GR-MP-01 through GR-MP-03
FR-MT-02	The System allows the use of Flying Creatures.	GR-MP-06
Exploration		
FR-EX-01	The System knows when a Player has entered an unexplored hex.	GR-EP-01
FR-EX-02	The System determines if the hex is guarded or unguarded.	GR-EP-02 A-06 A-04
Combat		
FR-CB-01	The System keeps track of battles that need to be resolved from the Movement or Exploration phase.	GR-CP-01
FR-CB-02	The System performs the phase using the current Player Order.	GR-CP-04
FR-CB-03	The Battle phase is broken up into different rounds.	GR-CP-05 through GR-CP-09
FR-CB-04	Each Player is allowed to choose which of their Creatures receive combat hits.	GR-CP-12
FR-CB-05	Attacking Players are allowed to retreat from combat.	GR-CP-13
Forts		
FR-FT-01	The System automatically subtracts 5 gold from the Player when they build or upgrade a fort.	GR-FP-01 GR-FP-02
FR-FT-02	Forts can engage in combat during the Combat Phase.	GR-FP-05, GR-FP-06
Interface Requirements		
FR-IF-01	A user is allowed to see all of the pieces and tiles he/she	GR-GC-02

	owns, as well as the current gold of all other Players.	
FR-IF-02	The System displays a roll-able die.	A-07
FR-IF-03	The interface allows the user to play a local (offline) game, or a networked game.	A-08

2.2 - Non-Functional Requirements

The following are non-functional requirements that deal with accessibility, usability, code maintainability, and overall system quality.

ID	Non-Functional Requirement	Traceability
NFR-01	The System responds instantaneously when a user performs any actions, such as drawing creatures from the cup, placing creatures on the board, and making general mouse actions.	A-9
NFR-02	The System knows whether it should connect the users to a network or not.	A-08
NFR-03	The System follows a precise order when executing the different phases.	A-10

2.3 - Assumptions

While developing this system, certain assumptions needed to be made in order to allow the user to interact with the system as smoothly as possible. Many of the functional/non-functional requirements trace back to the following assumptions. Each assumption is listed with an ID as well as the justification for making said assumption.

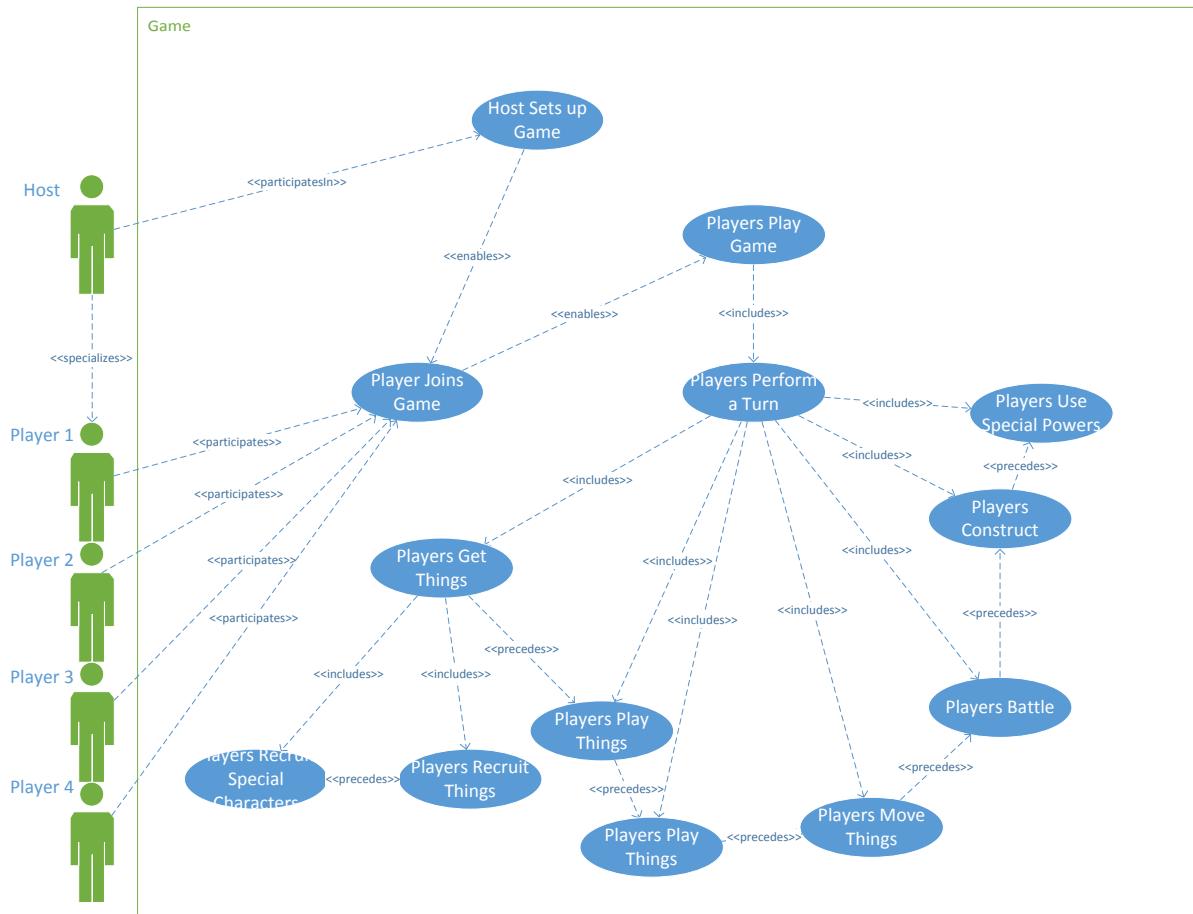
ID	Assumption	Justification
A-01	Games must be played with no less or no more than 4 players.	The 2-3 player game vastly differs in terms of tile setup and Citadel construction, so the system only handles games with exactly 4 players.
A-02	Players can only play Creatures/Special Income during the recruiting normal things phase.	It is very intuitive to be able to play things during the phase that you acquire them.
A-03	A Player who controls Master Thief or Assassin Primus must use the special ability during the Special Ability Phase	The abilities are powerful enough that players should not want to skip using them.
A-04	Only one die is used for rolling	This increases performance since the system does not have to generate more than one random number at a time.

A-05	Players play their newly acquired Special Characters in the preceding phase along with other Creatures.	This allows for a central phase where anything can be played on the board at once (similar to A-02).
A-06	The system rolls a die instead of a Player during the exploration phase.	This allows for a faster exploration phase because the system will not have to wait for another user to roll a die.
A-07	Players will want to see the values being rolled.	Players want to easily be able to see if their roll is better than their opponent's roll.
A-08	Users want to play on one machine, or across a network.	Sometimes users will all want to take turns on one machine, so they should be given the option to play locally or across a network.
A-09	Players wish to play a game without performance issues.	Modern systems require instantaneous response to prevent angry users.
A-10	The system correctly executes the different phases and waits for any user input.	The different phases must be performed according to the rules.

Section 3 - Use Cases

3.1 - Use Case Diagram

The following diagram corresponds to the use cases of this system. A larger version of the image is attached as a PDF. The ellipses represent specific use cases, the dashed lines with a <<participates in>> stereotype represents a “participates in” relationship, the dashed lines with an <<enables>> stereotype represents an “enables” relationship, the dashed lines with an <<includes>> stereotype represents an “includes” relationship, and the dashed lines with a <<precedes>> stereotype represents a use case preceding another.



3.2 - Use Cases

Each use case below is given its own ID, as well as a description.

UC-01	Player Joins Game
Description	This use case describes a Player joining a hosted game of Kings n' Things
Actors	Player
Triggering Event	Player accesses relevant server
Pre-Condition	The host has setup a game and is waiting for <i>others</i> players to join
Main Sequence	<ol style="list-style-type: none"> 1. Player selects a hosted game of Kings N Things 2. Player joins the hosted game 3. Game notifies player that s/he has successfully joined the game
Post-Condition	The player views the game view
Resulting Event	The player waits until game starts
Alternative Scenarios	3a. Player fails to connect to game and its client terminates
NFRs	N/A
Policies	A-01

UC-02	Player Plays Game
Description	This use case describes 4 Players playing a game of Kings n' Things
Actors	4 Players
Triggering Event	Final player has joined the game
Pre-Condition	4 Players have joined a Game
Main Sequence	<ol style="list-style-type: none"> 1. Players roll for player order 2. Players are given their initial gold 3. Players place initial control markers in player order 4. Players place their initial tower in player order 5. All Players receive initial things 6. Players play initial things in player order 7. Repeatedly: <ol style="list-style-type: none"> a. <u>Players Perform a Turn</u> of Kings N' Things b. Game determines if a Player has won <ol style="list-style-type: none"> i. If so, <u>Player wins</u> ii. else loop back to 7a
Post-Condition	Game has declared a winner
Resulting Event	Game ends
Alternative Scenarios	System unexpectedly terminates: <ul style="list-style-type: none"> • Notify players that the game is over. • Terminate system for all players.
NFRs	NFR-03, NFR-01
Policies	All FR-TS All FR-GS All Assumptions

UC-03 Player Plays a Turn	
Description	This use case describes 4 players playing a turn within a game of Kings n' Things
Actors	4 Players
Triggering Event	First turn OR previous turn has ended without a winner
Pre-Condition	Player order is set
Main Sequence	<ol style="list-style-type: none"> 1. Players acquire gold 2. Players recruit Special Characters 3. Players get things 4. Players play things 5. Players use Random Events 6. Players move things 7. Players enter combat 8. Players construct Forts 9. Players use Special Character Abilities 10. Play order is updated
Post-Condition	All players have played another turn
Resulting Event	Players are ready to play another turn
Alternative Scenarios	N/A
NFRs	NFR-03, NFR-01
Policies	All FR-TS

UC-04 Players Acquire Gold	
Description	This use case describes the steps for the players to get gold
Actors	4 Players
Triggering Event	Players begin a new turn
Pre-Condition	A new turn sequence has begun
Main Sequence	<ol style="list-style-type: none"> 1. In play order, each Player collects gold based on his/her income
Post-Condition	Players have received their gold
Resulting Event	The system advances to the next phase.
Alternative Scenarios	N/A
NFRs	NFR-03, NFR-01
Policies	All FR-GC

UC-05 Players Recruit Special Characters	
Description	This use case describes the steps for players to recruit Special Characters
Actors	4 Players
Triggering Event	Players have just acquired their gold.
Pre-Condition	The collection of Special Characters not in play is not empty.
Main Sequence	<ol style="list-style-type: none"> 1. In player order, each Player selects the Special Character they would like to recruit. 2. In player order, each Player rolls a die. If the value is larger than the combat value of the Special Character, they receive the Special Character.
Post-Condition	Players have either succeeded or failed in recruiting a Special Character
Resulting Event	Recruiting Special Character phase ends.

Alternative Scenarios	The Collection of Available Special Characters is Empty: <ul style="list-style-type: none"> Report to all players that no more Special Characters are available for acquisition. Proceed to UC-07 and carry out game as normal.
NFRs	NFR-03, NFR-01
Policies	A-03, A-04, A-05, A-07 All FR-SC

UC-06 Players Get Things	
Description	This use case describes the steps for the players to get things
Actors	4 Players
Triggering Event	Players have just tried recruiting Special Characters
Pre-Condition	“The cup” is not empty
Main Sequence	<ol style="list-style-type: none"> In play order, each Player obtains things from “the cup” based on the number of hex tiles they control. In play order, each Player can optionally recruit things at the cost of gold. In player order, each Player can return unwanted things to the cup in exchange for new ones.
Post-Condition	Players have received their things
Resulting Event	Players are ready to play things
Alternative Scenarios	The Cup Is Empty: <ul style="list-style-type: none"> The System notifies the players that the game is over.
NFRs	NFR-03, NFR-01
Policies	All FR-NR A-02

UC-07 Players Play Things	
Description	This use case describes the steps for the players to play things.
Actors	4 Players
Triggering Event	Players have recruited their things
Pre-Condition	UC-07 has been completed but system is still in Recruit phase
Main Sequence	<ol style="list-style-type: none"> In player order, each player takes things from his/her rack and places them on any tiles that s/he owns.
Post-Condition	Players' things have been placed on their tiles.
Resulting Event	Players are ready to use their Random Events
Alternative Scenarios	N/A
NFRs	NFR-01
Policies	A-02

UC-08 Players Use Random Events	
Description	This use case describes the steps for players to use their Random Events

Actors	4 Players
Triggering Event	Players have recruited their things and played relevant pieces on the board.
Pre-Condition	At least one player has at least one Random Event that s/he would like to play
Main Sequence	<ol style="list-style-type: none"> 1. In Player order, is allowed to play one Random Event (if s/he has any on his/her rack). 2. The corresponding event happens, based on what Random Event was played.
Post-Condition	At least zero Random Events were played.
Resulting Event	Players are ready to move their things.
Alternative Scenarios	No player has a Random Event that they would like to play: <ul style="list-style-type: none"> • The Random Event phase ends and the system enters the Movement Phase.
NFRs	NFR-01, NFR-03
Policies	FR-TS-04 GR-RE-01 GR-LL-02

UC-09	Players Move Things
Description	This use case describes 4 Players moving their things
Actors	4 Players
Triggering Event	Players have completed placing their things and playing Random Events
Pre-Condition	Things are in play
Main Sequence	In Player order, <ol style="list-style-type: none"> 1. The current player selects things (if any) to move from the currently selected tile. 2. The current player moves the selected things to the designated tile. 3. The system accepts the move to a hex owned by the current player
Post-Condition	Things have been moved
Resulting Event	System continues to Combat Phase
Alternative Scenarios	2a. The current player moved to an unexplored tile <ul style="list-style-type: none"> • System rolls die to see if defenders appear • If defenders appeared, players resolve combat in the Combat Phase 2b. The current player moved to an enemy player's tile <ul style="list-style-type: none"> • Combat will be resolved in the Combat Phase
NFRs	NFR-01, NFR-03
Policies	All FR-MT All FR-EX A-06

UC-10	Players Enter Combat
Description	This use case describes players resolving Combat from the Movement Phase
Actors	4 Players
Triggering Event	Combat from the Movement Phase must be resolved
Pre-Condition	A Player has unresolved Combat
Main Sequence	In each tile with an unresolved battle, repeat the following until the system

	<p>signals the battle to be complete:</p> <ol style="list-style-type: none"> 1. If more than two players are involved in the current battle, then the system asks each participant to select another participant of this battle as target. 2. Each participant rolls for each of his/her creatures involved in the current round of combat to determine how many hits s/he inflicts to his/her selected target. 3. For each hit received by a participant, the game asks that participant to select a thing to discard for its army involved in that combat. 4. The game offers each relevant participant the possibility of retreating. 5. The game declares combat to be over in this tile if none or a single participant is left in this tile, in which case: <ol style="list-style-type: none"> a. the status of any fort in that tile is resolved
Post-Condition	All combats have been resolved
Resulting Event	The system continues to the Construction Phase
Alternative Scenarios	2a. Tile has no fort so no fort is placed on the tile 2b. Battle had no victor, so the tile is set to neutral territory
NFRs	NFR-01, NFR-03
Policies	All FR-CB FR-FT-02 FR-IF-02 A-04

UC-11	Players Construct Forts
Description	This use case describes 4 Players constructing Forts
Actors	4 Players
Triggering Event	Players have resolved all battles
Pre-Condition	
Main Sequence	1. Each player is given the option of either building a fort on a tile that they own, or upgrading an existing fort.
Post-Condition	Players have constructed forts
Resulting Event	a) <u>Player wins</u> b) <u>Players Use Special Character Abilities</u>
Alternative Scenarios	1b. Player upgrades fort to Citadel <ul style="list-style-type: none"> • System determines if the Player should win
NFRs	NFR-01, NFR-03
Policies	FR-FT-01

UC-12	Players Use Special Character Abilities
Description	This use case describes 4 Players using their Special Character abilities
Actors	4 Players
Triggering Event	Any player owns either Master Thief, Assassin Primus, or both
Pre-Condition	Players have constructed Forts and a victor was not found
Main Sequence	1. Each player involved uses the Special Ability as per the rules

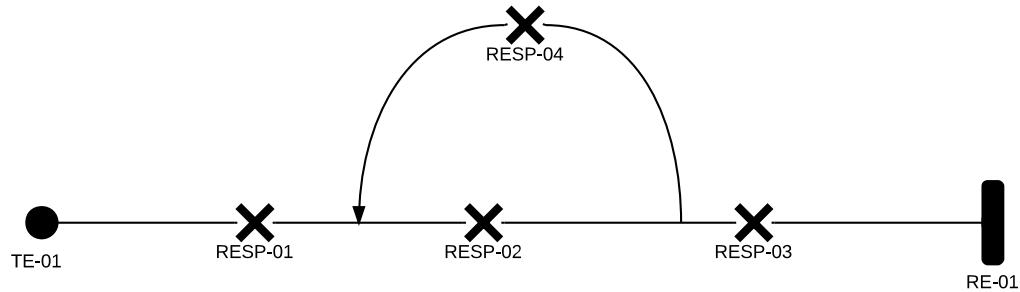
Post-Condition	Special Abilities have been used
Resulting Event	Special Abilities phase ends
Alternative Scenarios	No Player owns Master Thief or Assassin Primus <ul style="list-style-type: none"> The system continues as normal
NFRs	NFR-01, NFR-03
Policies	FR-TS-08 A-03 A-04 GR-SCA-01 GR-LL-01

UC-13	Player Wins
Description	This use case describes a Player winning the game
Actors	4 Players
Triggering Event	The system has determined that a player has won
Pre-Condition	N/A
Main Sequence	<ol style="list-style-type: none"> The system notifies each player who the victor is. The system asks each player if they would like to play again.
Post-Condition	The game receives the response from each player
Resulting Event	<ol style="list-style-type: none"> A new game is played as per UC-03 Each player disconnects from the system
Alternative Scenarios	N/A
NFRs	All NFR
Policies	All FR-WG

3.4 – Responsibilities, Unbound Use Case Maps

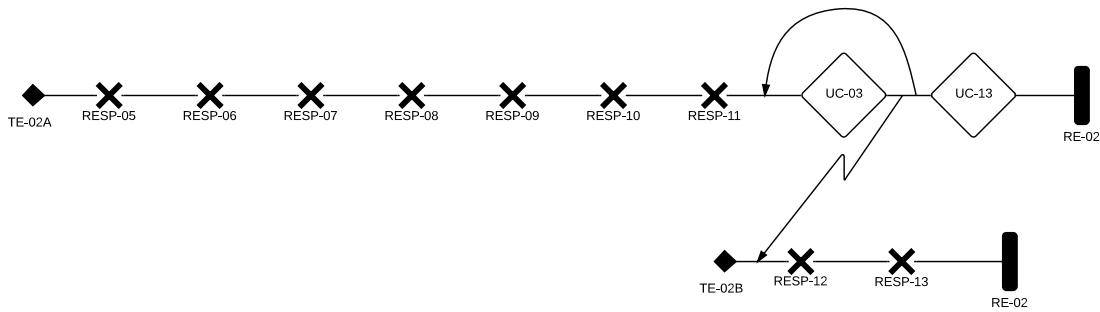
The following are the Responsibilities of each use case and will be used in each of the following Use Case Maps. The codes found in the ID column can be interpreted as Triggering Event, Responsibility and Resulting Event; for TE, RESP, and RE, respectively.

UUCM-01



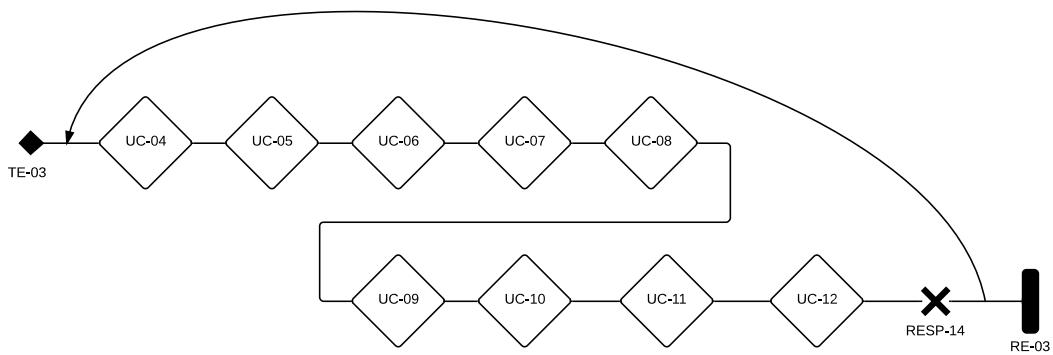
ID	Responsibility	Use Case
TE-01	System starts	UC-01
RESP-01	User decides whether the game will be hosted locally or across a network.	UC-01
RESP-02	User connects to the game server	UC-01
RESP-03	System notifies player that the game is beginning	UC-01
RESP-04	System reports an error connecting to the server	UC-01
RE-01	System continues to game	UC-01

UUCM-02



ID	Responsibility	Use Case
TE-02A	System begins game	UC-02
TE-02B	System just exited the game due to an unexpected error	UC-02
RESP-05	The system determines the Player order.	UC-02
RESP-06	The system gives players initial gold.	UC-02
RESP-07	The system lets players choose their initial starting kingdoms.	UC-02
RESP-08	The system lets players place their initial towers.	UC-02
RESP-09	The system gives players their initial Things.	UC-02
RESP-10	The system lets players place their initial Things.	UC-02
RESP-11	The system declares a winner.	UC-02
RESP-12	System notifies user that an unexpected error has occurred	UC-02
RESP-13	System terminates the game	UC-02
RE-02	Player exits the game	UC-02

UUCM-03



ID	Responsibility	Use Case
TE-03	User plays a turn	UC-03
RESP-14	System updates player order	UC-03
RE-03	Players are ready to play another turn	UC-03

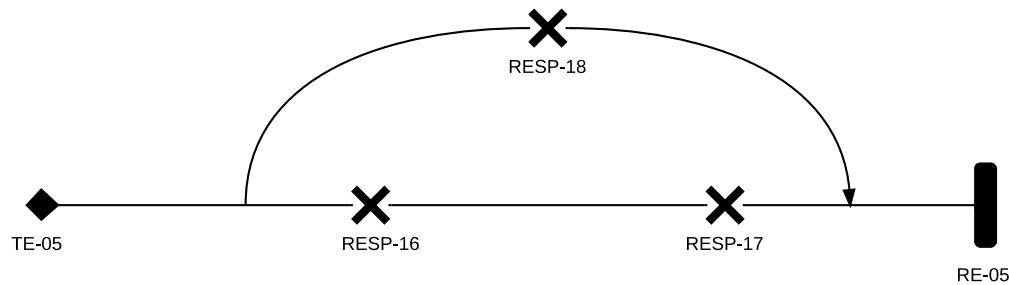
UUCM-04



ID	Responsibility	Use Case
TE-04	Player begins a new turn	UC-04
RESP-15	Player collects gold	UC-04

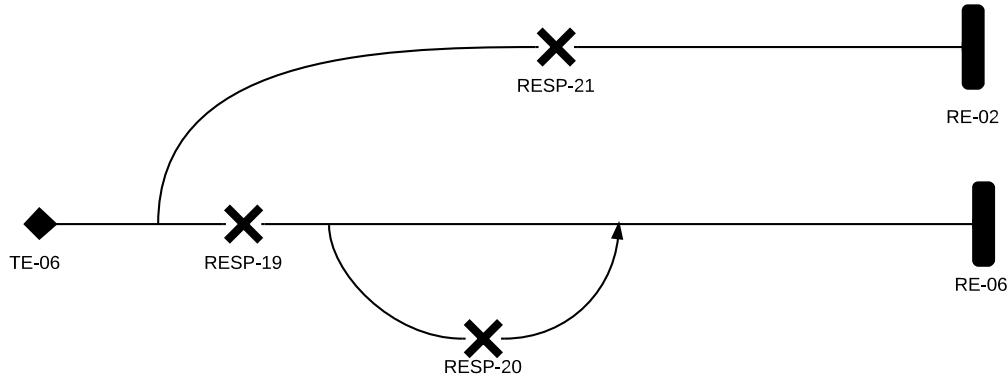
RE-04	System advances to the next phase	UC-04
-------	-----------------------------------	-------

UUCM-05



ID	Responsibility	Use Case
TE-05	Players have just acquired gold	UC-05
RESP-16	Player selects a Special Character to recruit	UC-05
RESP-17	Player rolls die in attempt to recruit the Special Character	UC-05
RESP-18	System notifies Players that there are no more Special Characters	UC-05
RE-05	System advances to the next phase	UC-05

UUCM-06



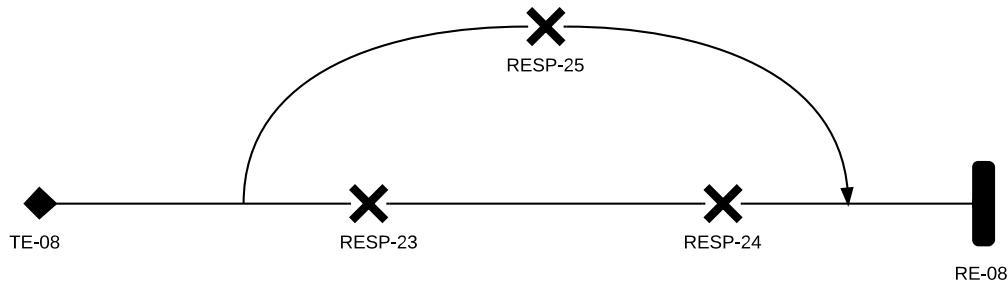
ID	Responsibility	Use Case
TE-06	Players have just finished recruiting Special Characters	UC-06
RESP-19	Player obtain Things from The Cup	UC-06
RESP-20	Player purchases Things from the Cup	UC-06
RESP-21	System notifies player that The Cup is empty	UC-06
RE-06	System advances to the next phase	UC-06

UUCM-07



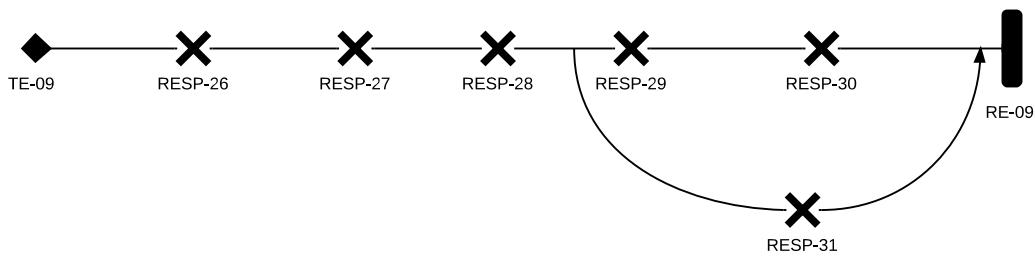
ID	Responsibility	Use Case
TE-07	Players have just finished recruiting Things from The Cup	UC-07
RESP-22	Player places Things on the board	UC-07
RE-07	System advances to the next phase	UC-07

UUCM-08



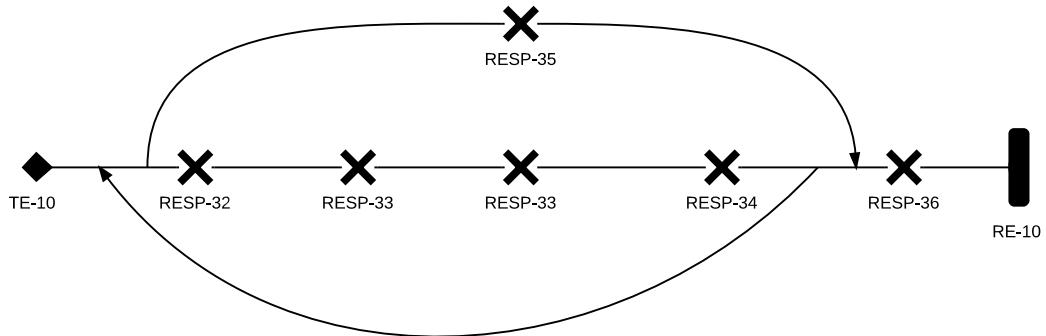
ID	Responsibility	Use Case
TE-08	Players just finished placing Things on the board	UC-08
RESP-23	Player plays a Random Event	UC-08
RESP-24	System adjusts games state for played Random Event	UC-08
RESP-25	No players held Random Events	UC-08
RE-08	System advances to the next phase	UC-08

UUCM-09



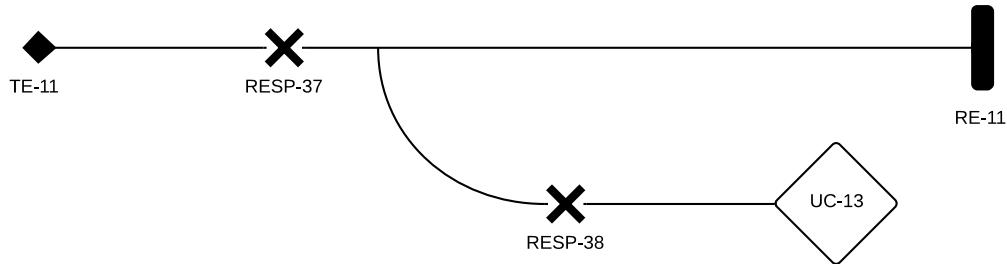
ID	Responsibility	Use Case
TE-09	Players just finished playing Random Events	UC-09
RESP-26	Player selects Things to move	UC-09
RESP-27	Player selects a tile to move Things to	UC-09
RESP-28	System moves Things to selected tile	UC-09
RESP-29	Player moves to an unexplored tile	UC-09
RESP-30	System rolls die to determine if combat will be declared	UC-09
RESP-31	Player moves to an enemy tile, system declares combat	UC-09
RE-09	System advances to the next phase	UC-09

UUCM-10



ID	Responsibility	Use Case
TE-10	Players just finished movement phase	UC-10
RESP-32	Combat is declared, player selects an enemy to attack	UC-10
RESP-33	Player rolls die for each Creature to determine if they will attack	UC-10
RESP-34	System asks defending player to select a defending creature	UC-10
RESP-35	Player retreats from combat	UC-10
RESP-36	System ends combat, remaining player is given ownership of tile	UC-10
RE-10	System advances to the next phase	UC-10

UUCM-11



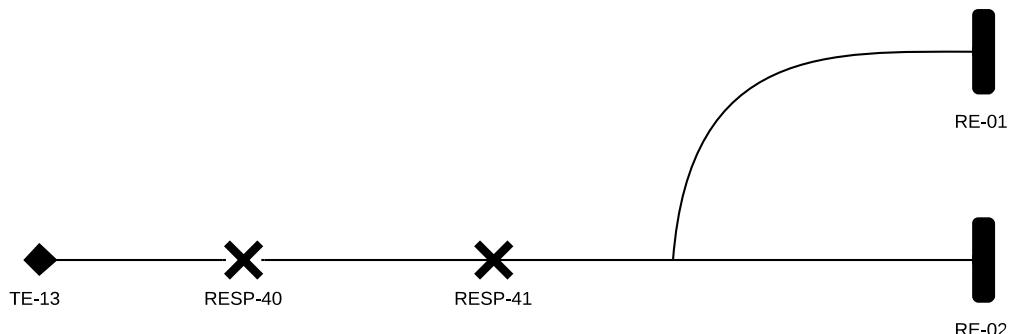
ID	Responsibility	Use Case
TE-11	Players just finished combat phase	UC-11
RESP-37	Player constructs or upgrades a Fort	UC-11
RESP-38	Player upgraded to a citadel	UC-11
RE-11	System continues to the next phase	UC-11

UUCM-12



ID	Responsibility	Use Case
TE-12	Players just finished construction phase	UC-12
RESP-39	Player uses a Special Character's ability	UC-12
RE-12	System advances to the next phase	UC-12

UUCM-13

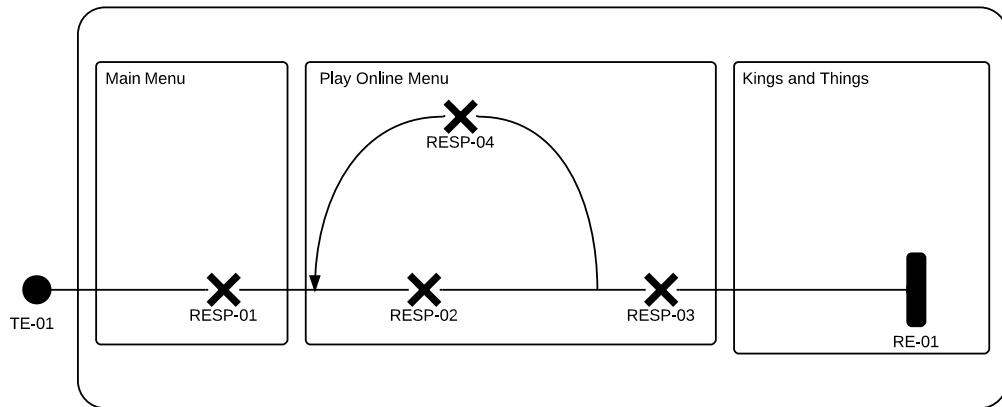


ID	Responsibility	Use Case
TE-13	Players have finished taking their turns	UC-13
RESP-40	System notifies players of the victor	UC-13
RESP-41	System asks players if they would like to play again	UC-13

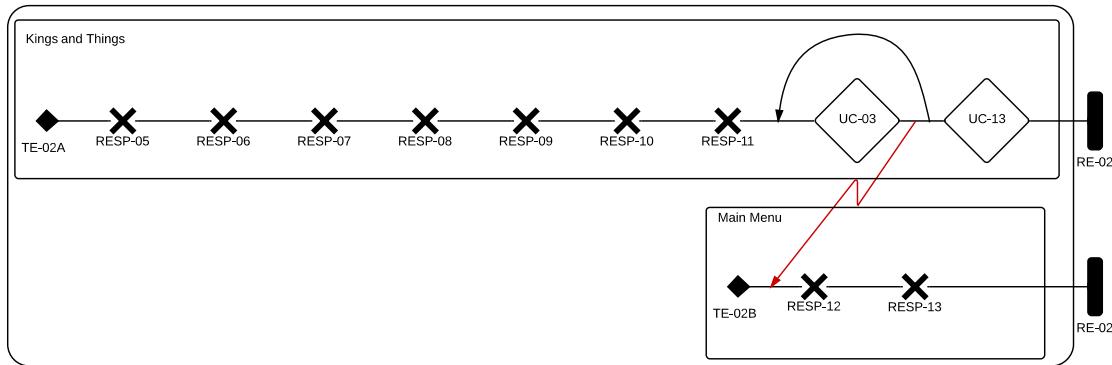
3.5 – Bound Use Case Maps

The following bound use case maps correspond to the unbound use case maps and the responsibilities listed in section 3.4.

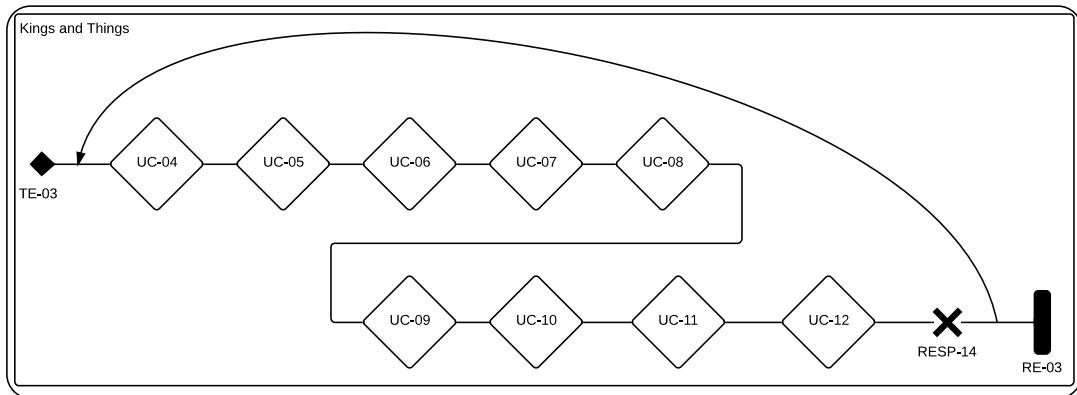
BUCM-01



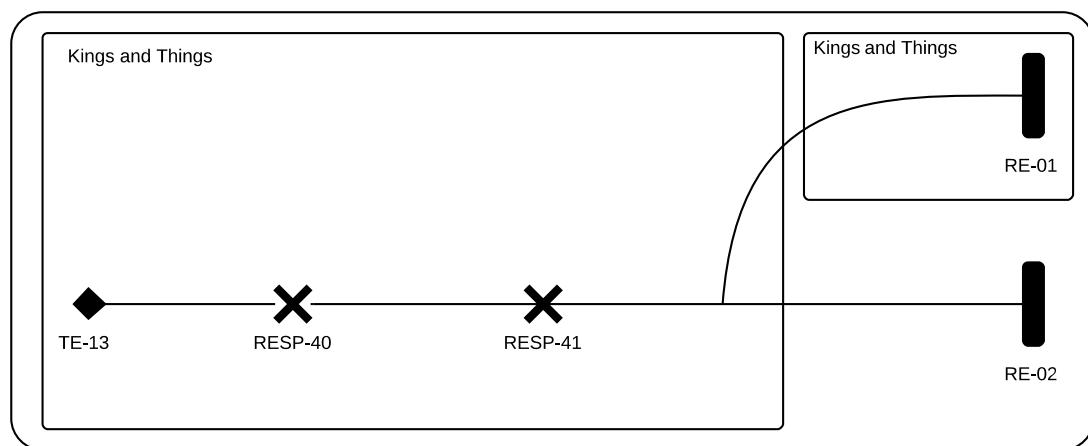
BUCM-02



BUCM-03



BUCM-13

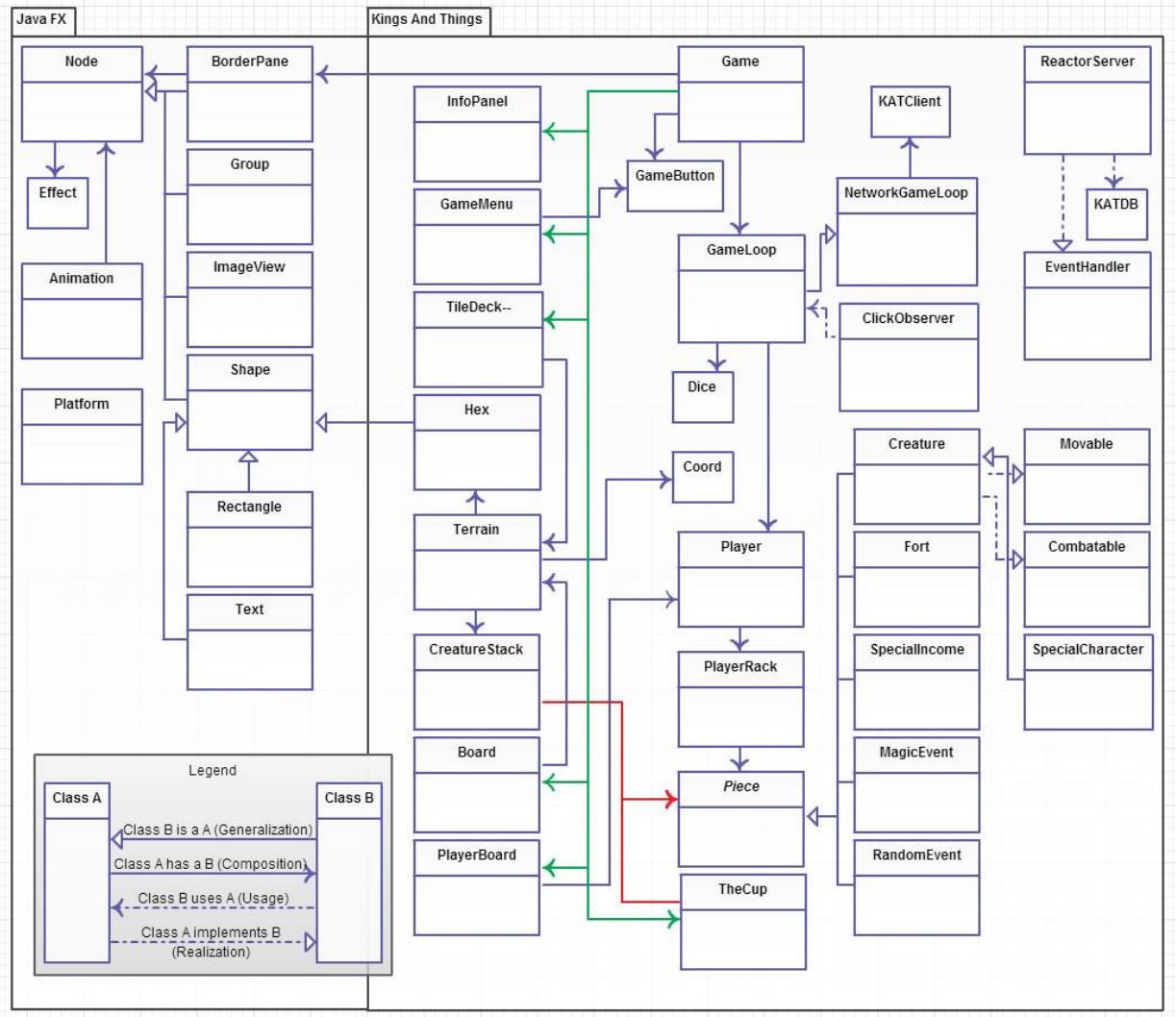


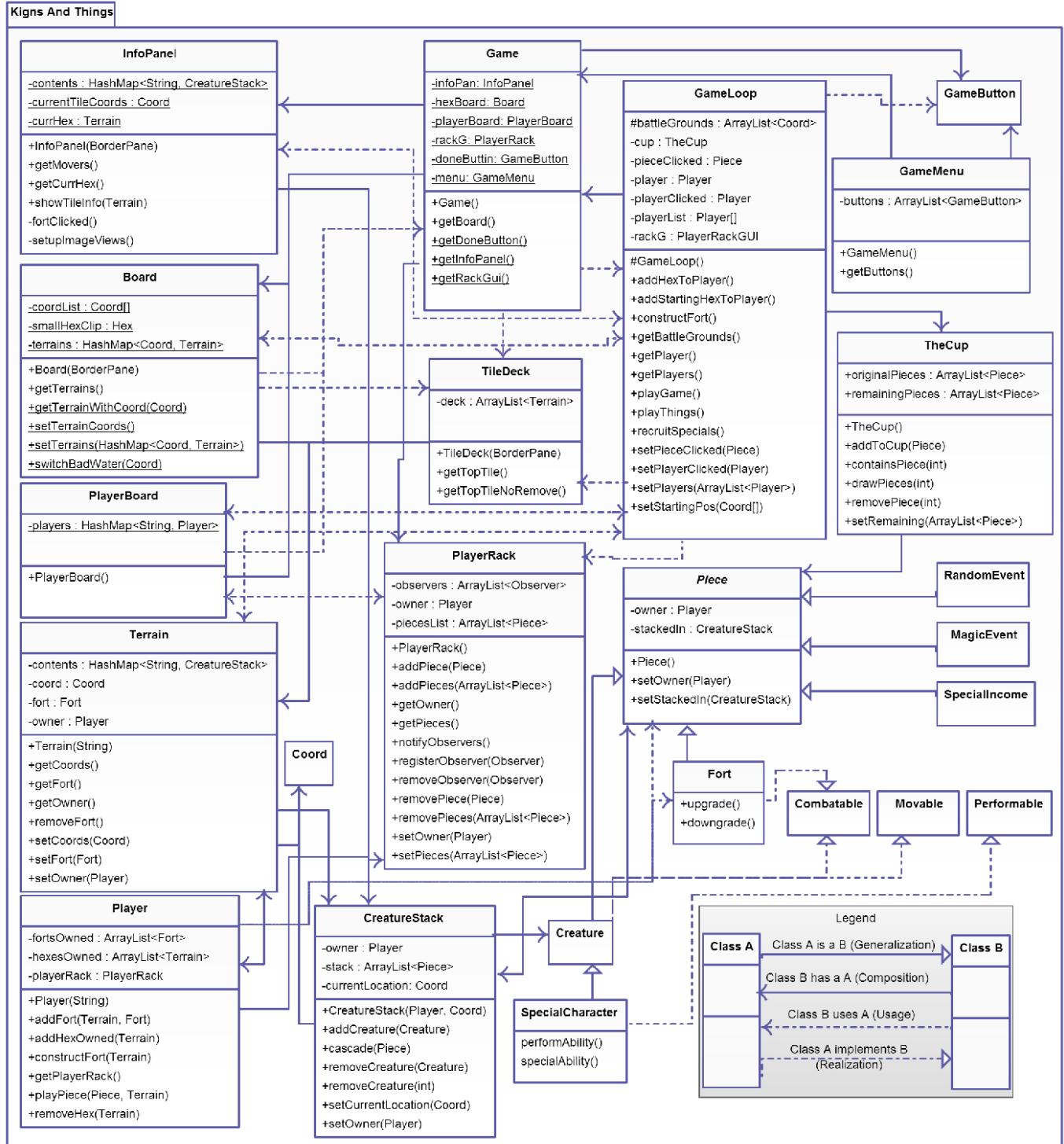
Section 4 - Design Decision

ID	Design Decision
DD-01	<p>Use of the Singleton Pattern</p> <p>Some classes only needed one instance. Using this pattern allows other classes to access the same instance of a singleton class, without storing it in a local variable, or retrieving it from another class's local variable.</p>
DD-02	<p>Multi-threaded dedicated server using the Reactor pattern</p> <p>By using a dedicated server, our game allows for many simultaneous online games at the same time. Users do not have to know who they will play with to start a game of Kings and Things, but can join any game, at any time, with random players.</p> <p>Using a dedicated server and database allows for scalability. For example, the game may be easily ported to a web or mobile application without making any changes to the server.</p>
DD-03	<p>Special Characters displayed in a grid-like fashion</p> <p>This allows for a centralized, intuitive spot for players to see the available Special Characters.</p>
DD-04	<p>Factory Pattern for Special Characters and various other piece classes</p> <p>Certain classes have lots of specific types of instances, needed a central place to create them.</p>
DD-05	<p>The cup reads in its initial members from a file.</p> <p>This method of initializing the contents of the cup was used so that the code would look a little cleaner, and all of the Creatures are located in one file which can be easily modified.</p>
DD-06	<p>The Player Rack uses the Observer Pattern</p> <p>The backend of the Player Rack is a subject and the GUI portion observes the backend so it can be updated whenever a piece is added/removed from the rack.</p>
DD-07	<p>All playable Things inherit from an abstract Piece class</p> <p>Code simplification, ease of maintainability.</p>
DD-08	<p>The server stores game and user information in a central database</p> <p>The server supports a database, which saves the entire state of any game, as well as some user information, while only sending the relevant information to clients. For example, a user's Player Rack is stored online in the database, but its contents are only sent to the corresponding user, disallowing other users to have any access to that private information.</p> <p>We understand that a single game of Kings and Things may take a long time to finish. By storing the game state in the online database, users are able to quit the client application, and then resume the same instance of that game at any time.</p>
DD-09	<p>Use of Combattable and Performable interfaces.</p> <p>Some functionality is common among classes that cannot be shared through the use of inheritance. For example, some Piece subclasses like Creatures and Forts can engage in combat while others cannot. Those classes may implement the same Combattable interface.</p>
DD-10	<p>Dice GUI 'rolls' on separate Thread</p> <p>Having the die appear to roll required a separate Thread for waiting a short time, and then updating the DiceGUI with a new number. It would repeat this 5 to 15 times creating the effect.</p>

DD-11	The use of the InfoPanel With the possibility of a large amounts of Pieces on any Terrain, a way of displaying them all at once was needed. This is especially important during combat.
DD-12	The Coord class The hexagonal nature of the game required more than an (x, y) approach to specifying the position of each Terrain. The Coord (coordinate) class contains an x, y, and z attribute, and each Terrain has a Coord in which its x, y, and z attributes all sum to zero.
DD-13	ClickObserver The ClickObserver is used because it has the ability to store previously clicked objects, and is simple to implement.
DD-14	Covering Items were covered or uncovered with a translucent JavaFX object Node. This allowed active objects to both be clicked and appear active, and inactive objects unable to be clicked and appear inactive.

Section 5 – Class Diagrams

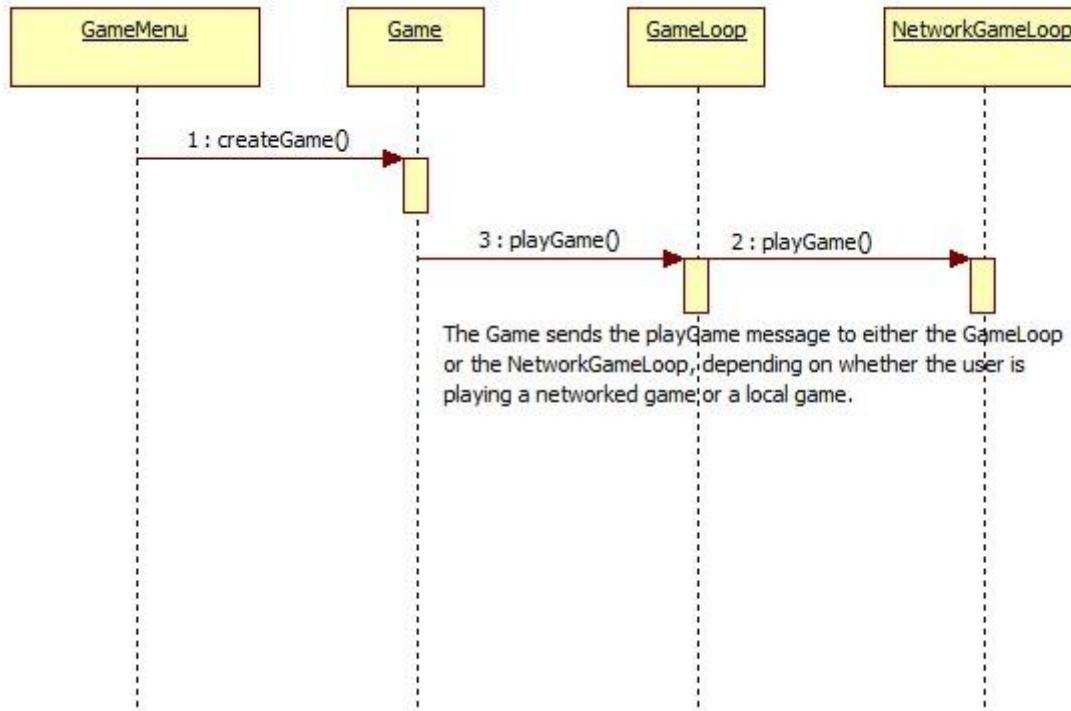




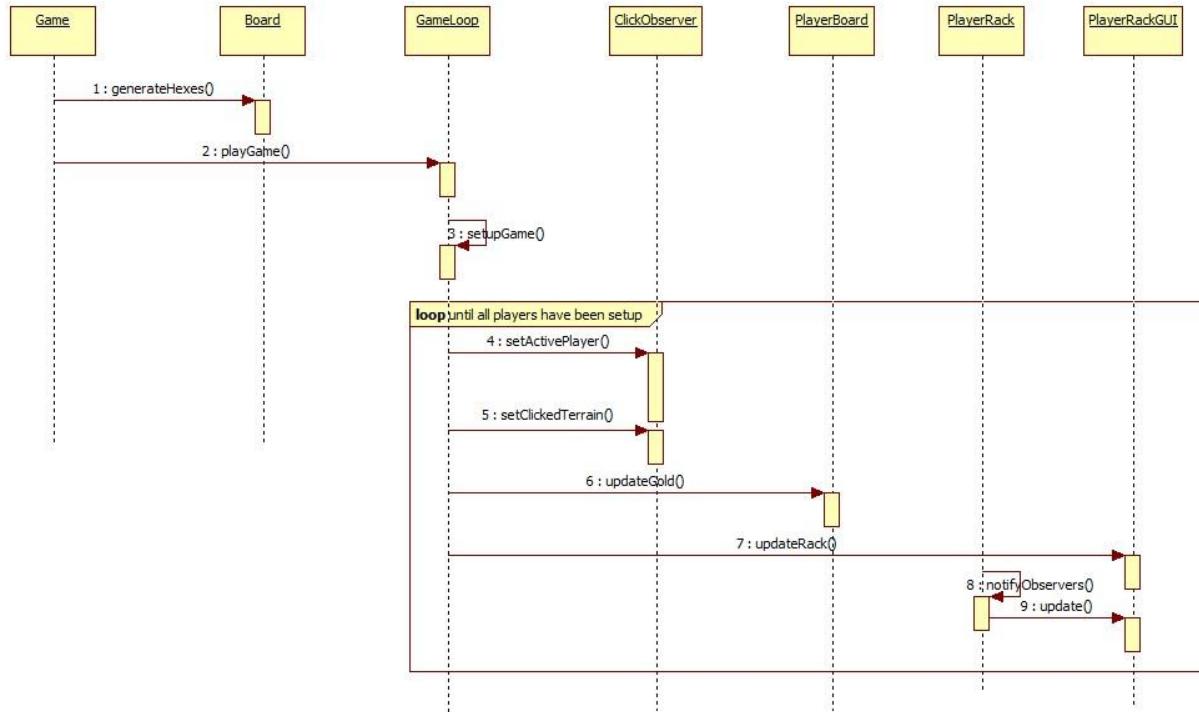
Section 6 – Sequence Diagrams

The following are sequence diagrams derived from the bound use case maps seen in section 3.5.

Join Game (BUCM01)

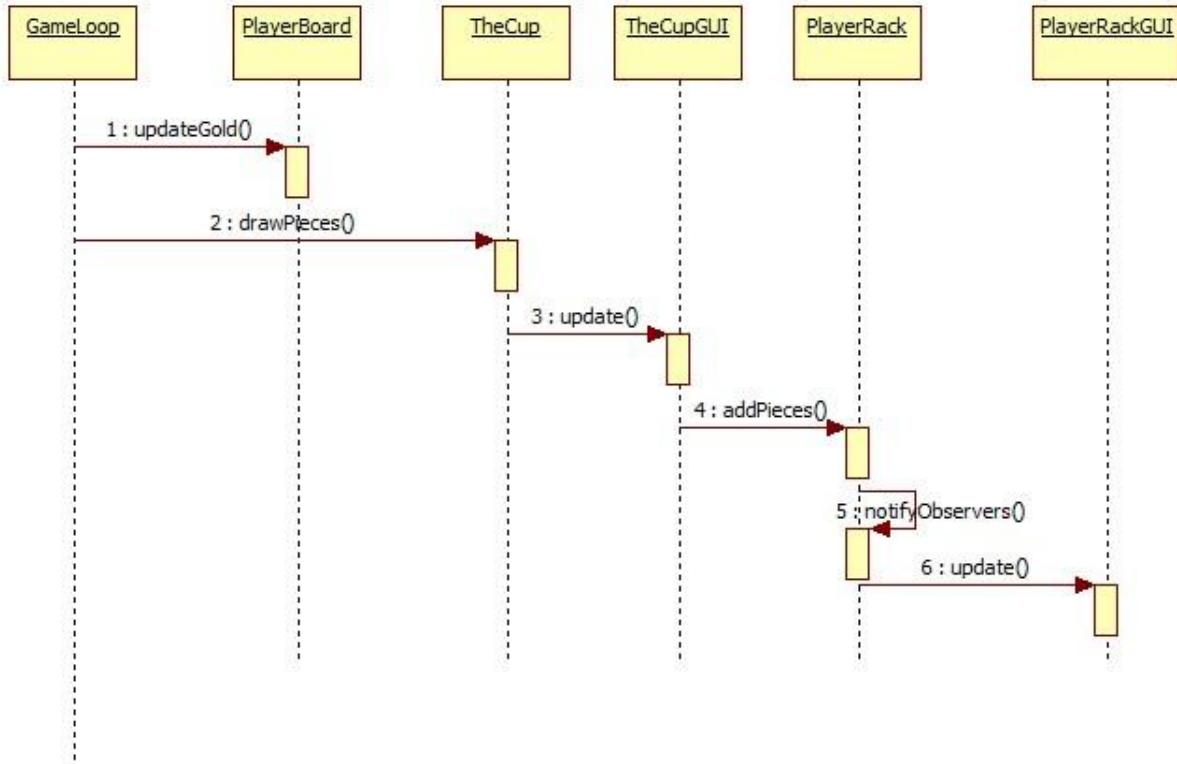


Game Setup (BUCM02)

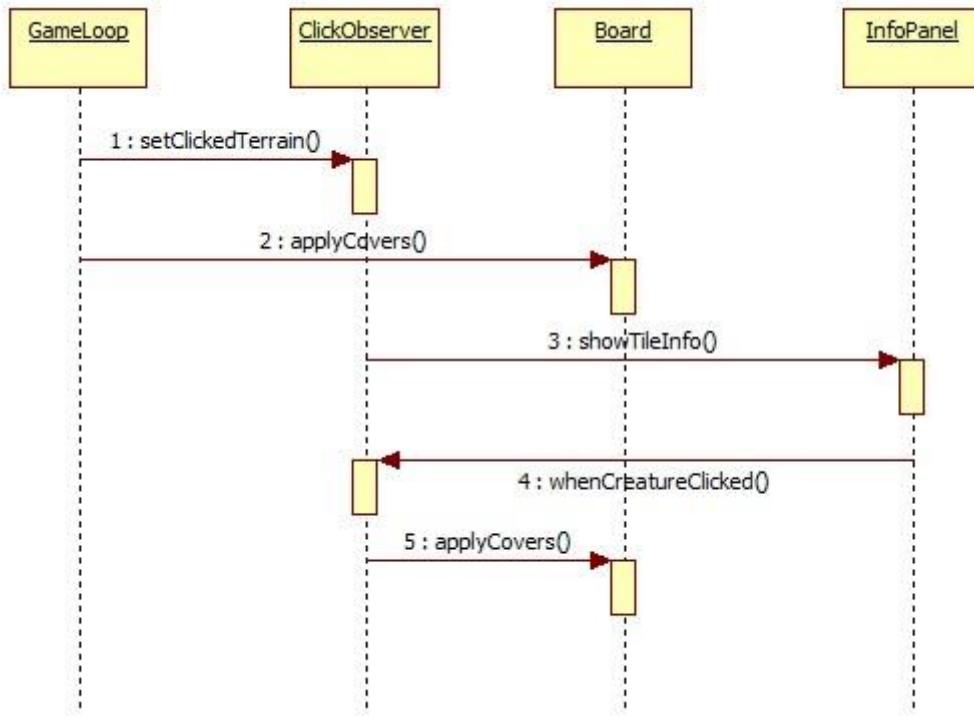


The following four sequence diagrams are for BUCM03 which describes a player playing a turn of the game.

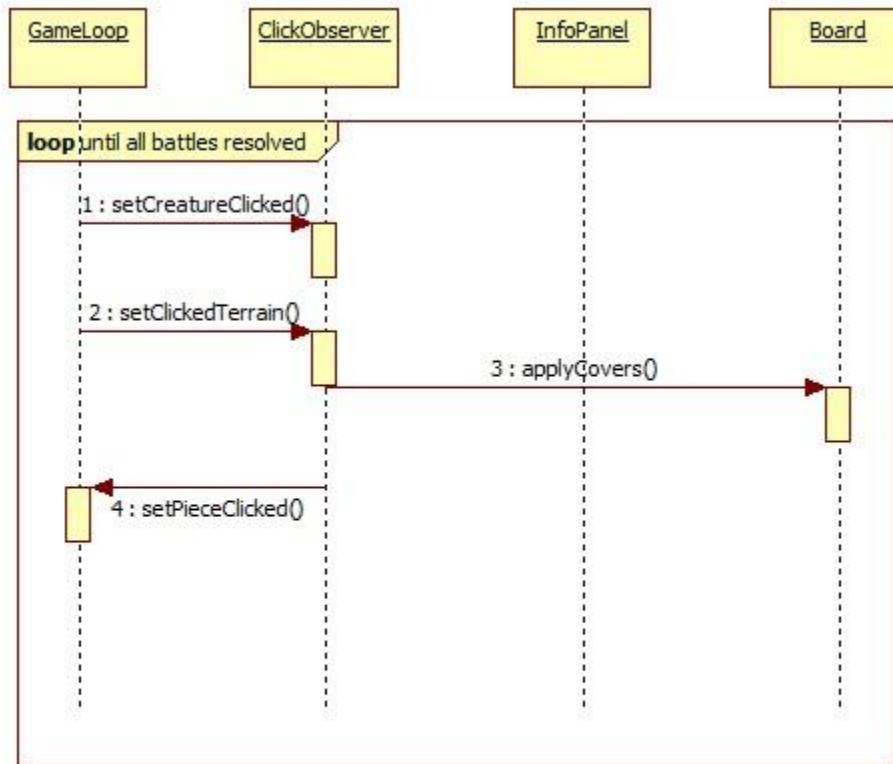
Recruiting Things



Creature Movement



Creature Combat



The GameLoop class has a method that basically deals with all combat decisions which involves lots of lists and click events, I wasn't sure how to show this in a sequence diagram.

Construction

