

Seven-day Roguelike Entry

Mar 9-15, 2013

Version: Day 2

DESIGN GUIDANCE

Design goal

To create (or recreate) a Rogue-like experience while striving for both portability and player-centric design within seven days.

Design platform

In order to reduce the complexity of the experiment and to allow the most iterations of player testing, the design platform must use physical objects that are readily available to the testers.

Design scope

The game Rogue will be used as a starting point, in order to recreate as much of the Rogue experience as possible. The individual game design elements of Rogue, however, are not required and will be excluded unless a specific design element contributes to the new design. Other games in the “Roguelike” genre are not part of the design scope, nor is the definition of “Roguelike” a governing framework. A popular game using physical objects should be used as a starting point for the physical design elements.

TASK LIST

1 Inspect physical game model

prereq: none

- 1.1 Choose a popular physical game to use as a model.
- 1.2 Deconstruct the physical game into design elements.

2 Inspect the game Rogue

prereq: none

- 2.1 Play the game Rogue to refresh memory on the experience.
- 2.2 Deconstruct the game Rogue into design elements.

3 Choose design elements

prereq: 1 complete, 2 complete

- 3.1 Compare design elements between the game Rogue and the popular physical game.
- 3.2 Strip away any elements of the physical game that are unnecessary or not useful.
- 3.3 Strip away any elements of the game Rogue that are unnecessary or not useful.
- 3.4 Compile design elements of both games into a set to be included in the design.

4 Design game elements

prereq: 3 complete

- 4.1 ...

5 Test game elements

prereq: 4 started

- 5.1 ...

6 Finalize game elements

prereq: 4 complete, 5 complete

- 6.1 ...

7 Create game documentation

- 7.1 Write game rules.

prereq: 6 complete

- 7.2 Write “story” to wrap game.

prereq: none

8 Test game documentation

prereq: 7.1 started

- 8.1 ...

9 Finalize game documentation

prereq: 8 complete

- 9.1 ...

10 Publish game!

prereq: 9 complete

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(1) INSPECT PHYSICAL GAME MODEL

prereq: none

(1.1) Choose a popular physical game to use as a model.

The most popular physical game I can think of that should yield useful game design elements is the Klondike version of the card game, solitaire. It is massively popular and has high replay value, while still requiring someone to know the rules first. With millions of people having suffered through the rules to reach proficiency at the game, this is a good sign that the game is well-designed in terms of both rules and gameplay.

(1.2) Deconstruct the physical game into design elements.

Terms

First, I want to define the components of the Klondike play area to establish terms for reference. There are four main components (Figure 1.2):

- Play stacks
- Goal stacks
- Draw deck
- Discard stack

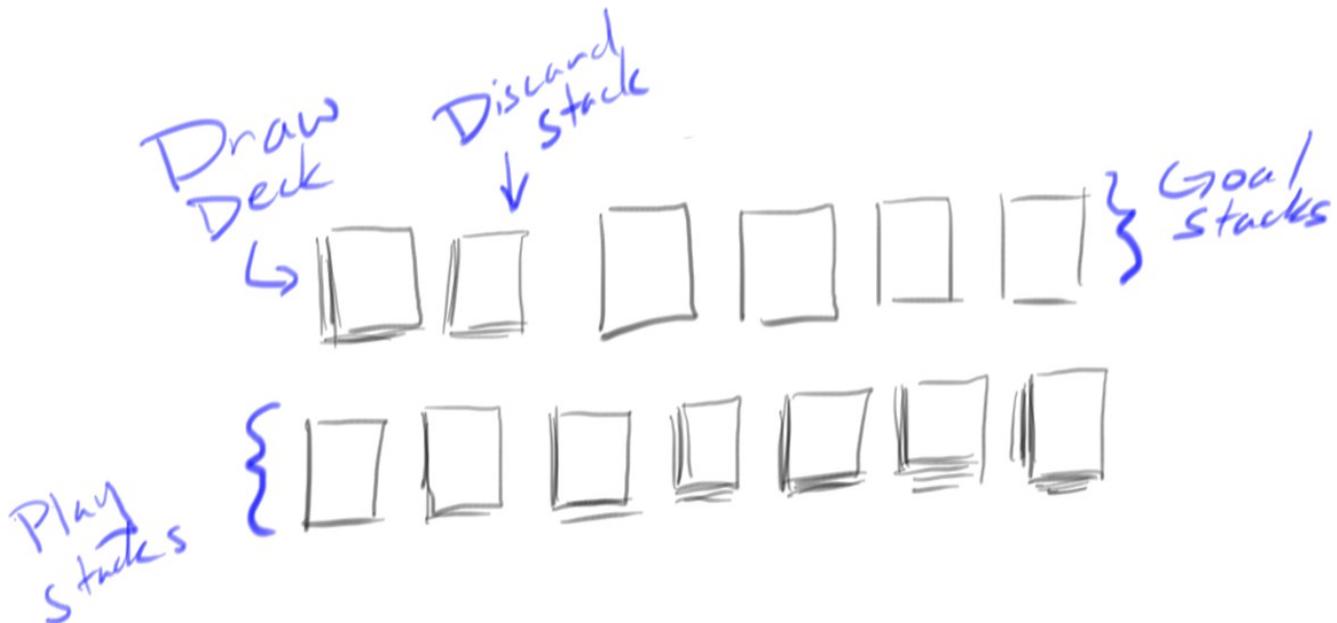


Figure 1.2: Components of Klondike solitaire

Basic game rules

The game begins with a deck of 52 standard playing cards that are shuffled. The determination of when the deck is considered shuffled changes based on the host of the game. Theoretically, a uniformly random distribution of the cards in the deck is ideal but not considered necessary.

The phase of the game is setup. The host of the game (usually also the player) creates seven horizontal piles of cards with a number of cards in the pile equal to the numbered placement of the piles counting left to right (pile 1 has one card, pile 2 has two cards, ..., pile 7 has seven cards). The top card of each pile faces up, and all other cards face down. The remaining 24 cards in the deck are placed to the side facing down as the draw deck.

Play begins once setup is complete. The player's goal is to assemble the entire deck of cards into four goal stacks. These goal stacks can contain cards of only one suit and must be assembled in order of one (ace) to 13 (king). To reach this goal, the player must move cards facing up so the cards facing down underneath can be turned to face up.

Cards that face up can be moved with the following restrictions:

- A card must be played into either a play stack or a goal stack.
- A card may be played on a goal stack provided the card is the same suit as other cards in the goal stack and is the next card in the sequence 1 to 13.
- A card may be played on top of another card in a play stack provided the card is opposite in color from the card currently on top of the play stack and is the next card in the sequence 13 to 1.
- A 13 (king) may be played into a play stack that contains no cards.

As an alternative to moving cards between play stacks, the player move cards from the draw deck and place them facing up in the discard stack. The card on top of the discard stack can be played onto a play stack or goal stack with the same restrictions as playing a card from a play stack.

The game ends when one of the following conditions are true:

- The player decides to forfeit (counts as a loss).
- No moves are available to the player, and the goal stacks are incomplete (counts as a loss).
- The goal stacks are complete (counts as a win).

Variations

The primary variations in the game center around the draw deck and scoring, and both are used to increase the difficulty and/or complexity of the game.

Regarding the draw deck, the host of the game decides how many cards may be drawn from the draw deck at one time. The easiest variation allows cards to be drawn from the draw deck one at a time. The more difficult variation requires three cards to be drawn at a time, effectively reducing the likelihood that any specific card from the draw deck will be playable without first playing other cards.

The host can also place restrictions on the number of times the discard stack can be turned upside down and transferred to the draw deck. The easier variation allows the discard stack to be transferred this way indefinitely, while the more common “difficult” style allows the discard stack to be transferred only three times. Some hosts may reduce this number as far as zero.

Regarding scoring, the host of the game can decide to place a score value on certain actions in the

game. Some hosts will start the score at zero and award points for cards that are placed in the goal stacks and for cards that are turned from facing down to face up. As time elapses, points may be deducted from the score, encouraging faster play. As an additional variation, the points may carry over between games, creating a meta game. With the meta game, the host will often deduct points for every game started as a cost to motivate players to squeeze every round for maximum points.

Elements of the game's design

The game is designed to be single-player, and in order to increase replay value, introduces both complexity and difficulty. Patterns are designed into the game using the patterns already inherent in the cards' markings. This allows the pattern to be used in multiple ways without confusing the player. For example, moves between play stacks require descending order and alternating color, while moves from the discard pile or play stacks to the goal stacks require ascending order and matching suit. The difficulty of the game is in the amount of imperfect information created by both the shuffling and in the hiding of all but seven of the cards' values from the player. Until the player makes a move, the player does not have full understanding of the consequences.

The setup instructions are somewhat complex, but again the use of patterns helps the player handle the complexity. The locations of the goal stacks, draw deck, and discard stack are not usually explicitly declared spaces, since the arrangement does not impact play. The play stacks vary in the number of cards each contains, but the variance is determined by a counting sequence from one to seven. By introducing the idea of putting the play stacks in order from left to right according to the number of cards in each stack, the setup is reduced to only counting and then remembering to turn the card on top of each play stack to face up.

The game is designed in a way that does not prevent cheating. The design assumes that a player wishes to experience the challenge and does not prevent the player from making illegal moves, renegeing on a move, or blatantly modifying the game to allow a win.

Elements of the gameplay

The game is experienced in two distinct phases: setup and play. The setup phase is performed by the host, and the play is performed by the player. When the host is also the player, this means the time spent in the setup phase should be balanced somehow with the time spent in the play phase. The game of Klondike solitaire is popular enough that we can treat it as a baseline for the balance between setup and play times. To get an idea of what these values are, two tests were sent out (Tests #1,2) to test the time spent setting up and the time spent to play a single game. We found that it can take around 4-8 minutes to set up five games, meaning setting up a single game takes somewhere around 1-2 minutes. We have to be a bit vague on the spread of times, since we gathered the times to the nearest minute, which creates a 1 minute variance on each end of the duration. We also found it can take around 2-8 minutes to set up and play a game, with most responses indicating that they felt the time to set up was not long.

The game is also pretty brutal in terms of win:loss ratios. None of the test responses indicated a win, and from experience, I personally have a win:loss ratio of around 7:100 using some of the more difficult variants.

During play, the game's random setup determines what moves are available, and the player determines which moves to make. The player's decisions have a significant impact on the whether or not a winnable situation is converted into a win, but most game setups do not appear to present winnable situations.

The rules for a move are complicated, but the rules can be consolidated down to just a few patterns. Once a player is familiar with the patterns, the player can quickly move to thinking in meta terms about the game and building a strategy over time. The cards themselves are part of the pattern, and the player performs comparisons with other cards rather than recalling specifics about the cards in question.

(2) INSPECT THE GAME ROGUE

prereq: none

(2.1) Play the game Rogue to refresh memory on the experience.

(2.2) Deconstruct the game Rogue into design elements.

(3) CHOOSE DESIGN ELEMENTS

prereq: 1 complete, 2 complete

(3.1) Compare design elements between the game Rogue and the popular physical game.

(3.2) Strip away any elements of the physical game that are unnecessary or not useful.

(3.3) Strip away any elements of the game Rogue that are unnecessary or not useful.

(3.4) Compile design elements of both games into a set to be included in the design.

(4) DESIGN GAME ELEMENTS

prereq: 3 complete

(4.1) ...

(5) TEST GAME ELEMENTS

prereq: 4 started

(5.1) ...

(6) FINALIZE GAME ELEMENTS

prereq: 4 complete, 5 complete

(6.1) ...

(7) CREATE GAME DOCUMENTATION

(7.1) Write game rules.

prereq: 6 complete

(7.2) Write “story” to wrap game.

prereq: none

I have started playing around with the idea of an angry troll who lives under a magic bridge. He's a troll, he must live under a bridge, but this magic bridge moves. The troll doesn't want to move, so he has to climb out from underneath the bridge and beat it senseless to keep it in place. Trolls aren't particular about the bridges they live under, so it's okay if the bridge is pretty beaten up when the troll is done. It does still have to be a bridge, though. I'm not sure why, but this seems to be an important part for trolls.

I could write up a bunch of this to suit my own fancy, but I would like to make sure the story suits others. A test was sent out (Test #3) to get some others' ideas about how a troll might feel or act. To get the ball rolling, the troll from the Three Billy Goats Gruff was chosen. I assume after being battered down, stomped flat, and thrown into a river, the troll from that story should be suitably angry for my purposes.

(8) TEST GAME DOCUMENTATION

prereq: 7.1 started

(8.1) ...

(9) FINALIZE GAME DOCUMENTATION

prereq: 8 complete

(9.1) ...

(10) PUBLISH GAME!

prereq: 9 complete

APPENDIX

Test #1

Email sent

Tester criteria:

- Testers must know how to set up a game of Klondike solitaire (aka Windows solitaire with seven stacks of cards, and a draw deck).

Materials required:

- 52-card deck of playing cards (no jokers or other “extra” cards)
- A digital clock or watch

Time required: no more than 15 minutes

Instructions: (Use your own discretion to interpret the instructions, but don't try to purposefully misinterpret. Vague or ambiguous directions are likely written that way on purpose.)

- Get out the deck of cards and place them in a single stack with all cards facing down.
- Write down the time, to the nearest minute.
- Repeat five times:
 1. Shuffle the deck seven times.
 2. Set up for a game of Klondike solitaire.
 3. Pick up all the cards and place them in a single stack
- Write down the time, to the nearest minute.

Results: (fill the following form out and reply to this email)

Start time:

End time:

Results received

Start time: 2:28

End time: 2:35

Start time: 7:07 PM

End time: 7:12 PM

Start time: 7:22 pm

End time: 7:31 pm

Start time: 8:58 PM

End time: 9:03 PM

Start time: 15:25

End time: 15:29

Test #2

Email sent

Tester criteria:

- Testers must know how to set up and play a game of Klondike solitaire (aka Windows solitaire with seven stacks of cards, and a draw deck).

Materials required:

- 52-card deck of playing cards (no jokers or other “extra” cards)
- A digital clock or watch

Time required: no more than 10 minutes

Instructions: (Use your own discretion to interpret the instructions, but don't try to purposefully misinterpret. Vague or ambiguous directions are likely written that way on purpose.)

- Get out the deck of cards and place them in a single stack with all cards facing down.
- Write down the time, to the nearest minute.
- Shuffle the deck to your satisfaction.
- Set up for a game of Klondike solitaire.
- Play a single game of Klondike solitaire.
- Write down the time, to the nearest minute.

Results: (fill the following form out and reply to this email)

Start time:

End time:

Which of the following most closely describes your game result:

- a. I won.
- b. I ran out of moves and lost.
- c. I gave up, because I couldn't win.

Which of the following most closely describes how you feel about the length of your game:

- a. It was a short game.
- b. It was a long game.
- c. I don't feel strongly about picking 'a' or 'b'.

Which of the following most closely describes how you feel about the length of time spent setting up the game:

- a. The setup is fast.
- b. The setup takes too long.
- c. Given the length of the game, the setup feels about right

Results received

Start: 2:36

End: 2:39

- b. I ran out of moves and lost.
- a. It was a short game.
- c. Given the length of the game, the setup feels about right.

Start time:7:15 PM

End time:7:22 PM

- b. I ran out of moves and lost.
- b. It was a long game.
- a. The setup is fast.

Start time:7:37 pm

End time:7:43 pm

- b. I ran out of moves and lost.
- b. It was a long game.
- b. The setup takes too long.

Start time:9:05

End time:9:07

- b. I ran out of moves and lost.
- a. It was a short game.
- a. The setup is fast.

Start time: 15:30

End time: 15:36

- b. I ran out of moves and lost.
- a. It was a short game.
- a. The setup is fast.

Test #3

Email sent

Tester criteria:

- none

Materials required:

- Access to the story of the Three Billy Goats Gruff (http://americanfolklore.net/folklore/2010/10/three_billy_goats_gruff.html).

Time required: no more than 20 minutes

Instructions: (Use your own discretion to interpret the instructions, but don't try to purposefully misinterpret. Vague or ambiguous directions are likely written that way on purpose.)

- Read the story of the Three Billy Goats Gruff.
- Write a short piece (no more than one page) about the troll **AFTER** the story. The piece can be in any form: a limerick, a haiku, a description of therapy sessions attended, a letter written home to mother... anything you can think of.
- If the fancy takes you, you can write multiple pieces, but keep each piece short.

Results: (place your written piece below)

Results received