Inferno of Victory Excerpts

For copyright reasons, I cannot post all of the ~60 pages of documentation for my freshman board game, Inferno of Victory, online. The following are excerpts from that documentation.

Design Document

Here is the initial concept, the first iteration, and some theoretical extra versions from my design document:

Initial Concept and Design Goal

I first came up with the idea for this game, I drew inspiration from one of my classmate's Team Fortress games in which the units moved on a region map where each region contained a grid map. Units could move anywhere inside of the grid inside of their region, and could sometimes get into cover. I decided that this is how my game board would work because this kept complexity low while still providing a lot of tactical decision making. I also wanted the combat to be ranged and fought with guns because this would take advantage of the cover system more than a melee focused game would.

I decided on the theme of a John Woo style shoot out because this provided a good theme for high amounts of action in the game while at the same time allowing for interesting mechanics, such a destructible cover and slow motion. Thus, one of my primary design goals was to provide the experience of being in an action movie while giving players strategic options.

I originally thought of having the game be a group of cops fighting off a group of gang members, but after watching a few fight scenes from John Woo movies I decided this would not fit the theme as well as two heroes fighting off a horde of henchmen. This also made it easier for me to make the two heroes feel mechanically different from each other. I also gave the villain player a named character because this would give them more engagement with the game and it would help to keep the game balanced, since the henchmen would necessarily have to be very week compared to the heroes. I also decided to have the player name the major characters so that they would have greater attachment to them.

I wanted the heroes and the eliminator to feel different from each other, so I gave them all unique weapons and abilities. The cop has a desert eagle because it fits with the whole cop persona of being a cool guy while only wielding a pistol. It also makes this character the high damage accurate unit, which also fits with the hero theme of being a logical character in an insane world. Additionally, this character prevents the Sindycate player from simply hunkering down behind cover and making the game stalemate, since he can shoot through walls and ignore soft cover. His special ability is not necessarily meant to be a damaging ability, rather, it

is meant to be an area denial ability that forces the Sindycate player to evacuate a region, which also prevents stalemates.

The Triad boss is meant to feel like the spray and pray unit that can be deadly in close quarters. This makes him fit with the persona of someone who has had to survive in the insane criminal underworld. His weapons are meant to be inaccurate compared to the cop's weapons, meaning that if his target has momentum and is in cover, he is practically useless. However, once he moves into an advantageous position, he can unload a massive amount of bullets into his foes.

The henchmen are meant to convey the same feeling of the semi useless goons depicted in many action movies. They have a very poor aim and they have no special abilities other than there being many of them. These are necessary to make the Sindycate player feel like they are actually commanding an evil organization. The reason they respawn endlessly was because otherwise, I would need to make them more powerful in order to make the Sindycate player strong enough to beat the hero player, which in turn would not fit the theme.

The Eliminator is meant to feel like an intimidatingly powerful foe who is better than both of the heroes on their own. He is armed with an incendiary shotgun because this makes the hero player feel like they have to avoid this enemy most of the time. The Eliminator should be able to beat either hero one on one. However, if both heroes are together, then they have a chance of fighting him and his henchmen off. This encourages the hero player to keep their heroes together, while at the same time giving the Sindycate player an interesting choice of keeping all of their henchmen in one place with the Eliminator or moving some of them to a strategic position somewhere else. He is also to balance out the relative weakness of the henchmen.

Because the henchmen respawned endlessly, I knew that the goal for the hero player could not be "kill all of the bad guys." Thus, thought of giving them different goals. Some ideas I had were having the heroes defend a third unit that has no combat abilities, defending an area for a given period, or escaping a building. I eventually decided that their goal would be to exit the building, because it was the simplest goal I could make while still discouraging stagnation.

The flavor text at the beginning of the rules is intentionally phrased like a cliché movie trailer. It is meant to get the players excited while at the same time getting them into the theme of the game. It also introduces each of the major characters and the space of the game, which might make some of the rules clearer.

I had a mechanic for momentum because this could encourage the players to always be in motion, rather than simply staying put and stagnating the game. Additionally, this fit with the theme of heroes dodging bullets simply by running around fast.

The slow motion mechanic is to give the player a decision of whether to use more of its resource now and get an immediate power boost or to save it for later. Additionally, it fits with the theme of action movies containing slow motion action sequences.

The game board has the Sindycate start zone in the center of it because if it was on either the left or the right sides, it would create a single optimal path for the hero player to get funneled down. Additionally, if I had placed the Sindycate start zone at the exit, the Sindycate player would simply camp at the exit and try to grind the heroes down as they go to the exit, which would not be engaging and it would not fit with the theme of nearly constant action.

The game is meant to be balanced such that neither player is certain about who will win. This is meant to provide the actual winner with a great sense of satisfaction when they win, and to ensure that there is not a player who is simply sitting and waiting to lose for a long period of time. Moreover, this amplifies the theme of tense action in which no one is entirely sure who will be victorious.

In a world, where guns don't need ammo, and violence is the rule of law, two men will change the face of their city forever. One, an old time cop who's down on his luck and doesn't play by the rules, the other, a former Triad boss seeking redemption, must fight for their lives and their city. The Sindycate, an omni-national mega gang pushing their drugs all over the world, has sent the eliminator to take them down while they search a police office for evidence. Will the heroes save the day? Will the city be thrown into drug induced oblivion? Why is Sindycate spelled like that? Who will prevail to experience an

Inferno of Victory

Objective

One of the heroes must escape the building to bring the Sindycate to justice, and the Sindycate must kill the heroes to cover up their heinous crimes.

Components

- 1 game board
- 2 hero tokens, 1 villain token, and 4 henchmen tokens
- 1 hero player sheet and 1 Sindycate player sheet
- 3 red pegs to be health trackers and 3 yellow pegs to be adrenaline trackers
- 2 white 6 sided dice, 1 black 10 sided die, and 1 purple 6 sided die
- 1 pencil
- 1 rule book

Setup

1. Place the game board and the pencil between both players
2. One player plays as the heroes, and takes the hero player sheet and tokens.
3. The other player plays as the Sindycate, and takes the Sindycate player sheet, the villain token, and the henchmen tokens.
4. Each player names their heroes or their villain.
5. The hero player takes 2 health and adrenaline trackers and places them on their highest values, and the Sindycate player takes 1 health and adrenaline tracker and places them on their highest values.
6. The hero player takes the 2 white dice and the Sindycate player takes the black die and the purple die.
7. Place the heroes in the hero start region and the villain and henchmen in the Sindycate start region.
8. The Sindycate player goes first.

Rules

Turn Order

- Each player takes turns moving all of their units.

Movement

- The board is divided up into regions, and each region contains multiple square spaces.
- Each unit can move into an adjacent region.
- Each unit can also move into a space inside of the region that they are in unless it is already occupied by cover or another unit. This costs nothing to do.
- Units can move over soft cover, but they cannot move through hard cover.

Attacking

- In order to hit another unit, a player must roll equal to or greater than the minimum attack roll of the unit they are using.
- Each time a unit gets hit, they take 1 damage.
- Each unit can shoot anywhere that they have line of sight to, which is explained in cover.

Cover

- Soft cover defends a unit by increasing the minimum attack rolls against this unit by 1.
- Units cannot shoot through hard cover.
- A unit is protected by cover if there is cover between him and his attacker.
- To determine if there is cover between two units, put one end of the pencil on the center of a unit and the other end on the center of the other unit. If the pencil touches any space that has cover that is not adjacent to the attacker, the defender is in cover.

Death

- Henchmen only have 1 health, so they are killed instantly when they are shot.
- When a henchman dies, place him back at the villain start region.
- When a Hero dies, place their token by the hero player sheet.

Momentum

- If a unit moved into a different region the previous turn, it increases the minimum attack rolls against this unit 1, but only for that turn.

Slow Motion

- The heroes and the Eliminator have 3 adrenaline that they can spend to send their character into slow motion.
- While in slow motion, a character can either attack twice or move twice.
- If they choose to attack twice, they can still move once, and vice-versa.

Victory

The hero player wins when they move one hero outside of the building, and the Sindycate player wins when they kill both of the heroes.

Player Sheets

_____,	_____,
The down on his luck cop	*The former Triad boss seeking redemption*
Health ① ② ③ 1 2 3	Health ① ② ③ 1 2 3
Adrenaline ① ② ③ 1 2 3	Adrenaline ① ② ③ 1 2 3
Weapon: Desert Eagle Minimum attack roll: 3 Effect: Ignores soft cover. Can shoot through hard cover into an adjacent region, but the minimum attack roll will be increased by 1.	Weapon: Dual Uzis Minimum attack roll: 5 Effect: Roll 2 attack dice instead of 1, if both of them are successful rolls, deal 1 damage to two different enemies in this unit's range
Ability: Pipe Bomb, roll an attack die, if it is equal to or greater than 5, a pipe bomb gets thrown into the target region. It will detonate next turn, dealing 1 damage to every unit inside of it. <u>This counts as an attack</u>.	Ability: Flying Roundhouse Kick, If this unit is inside of the same region as an enemy, he can attack that enemy and deal 1 damage without an attack roll.

_____,	The _____s,
The Eliminator	*The Elite squad of henchmen*
Health ① ② ③ ④ 1 2 3 4	Health Each henchman has only <u>1 health</u>
Adrenaline ① ② ③ 1 2 3	Henchmen do not have adrenaline
Weapon: Incendiary Shotgun Minimum attack roll: 6 Effect: Roll with the black 10 sided die (0 is 10)	Weapon: Berretta Minimum attack roll: 5 Effect: N/A

Minimum attack roll is reduced to 3 if this unit is in the same region as the target.	What were you expecting?
Ability: Blood Vengeance, every turn that this unit is dead, it's player rolls the black 10 sided die. If they roll a 0, then this unit is inexplicably revived in the region he "died" in.	Ability: Endless Hordes, when a henchman dies, he is replaced by another one by placing his token at the Sindycate start zone.

Game Board

EXIT

Key

| | Soft Cover | | Hard Cover | | Region Boundry |
| | Hero Start Zone | | | Sindycate Start Zone | |
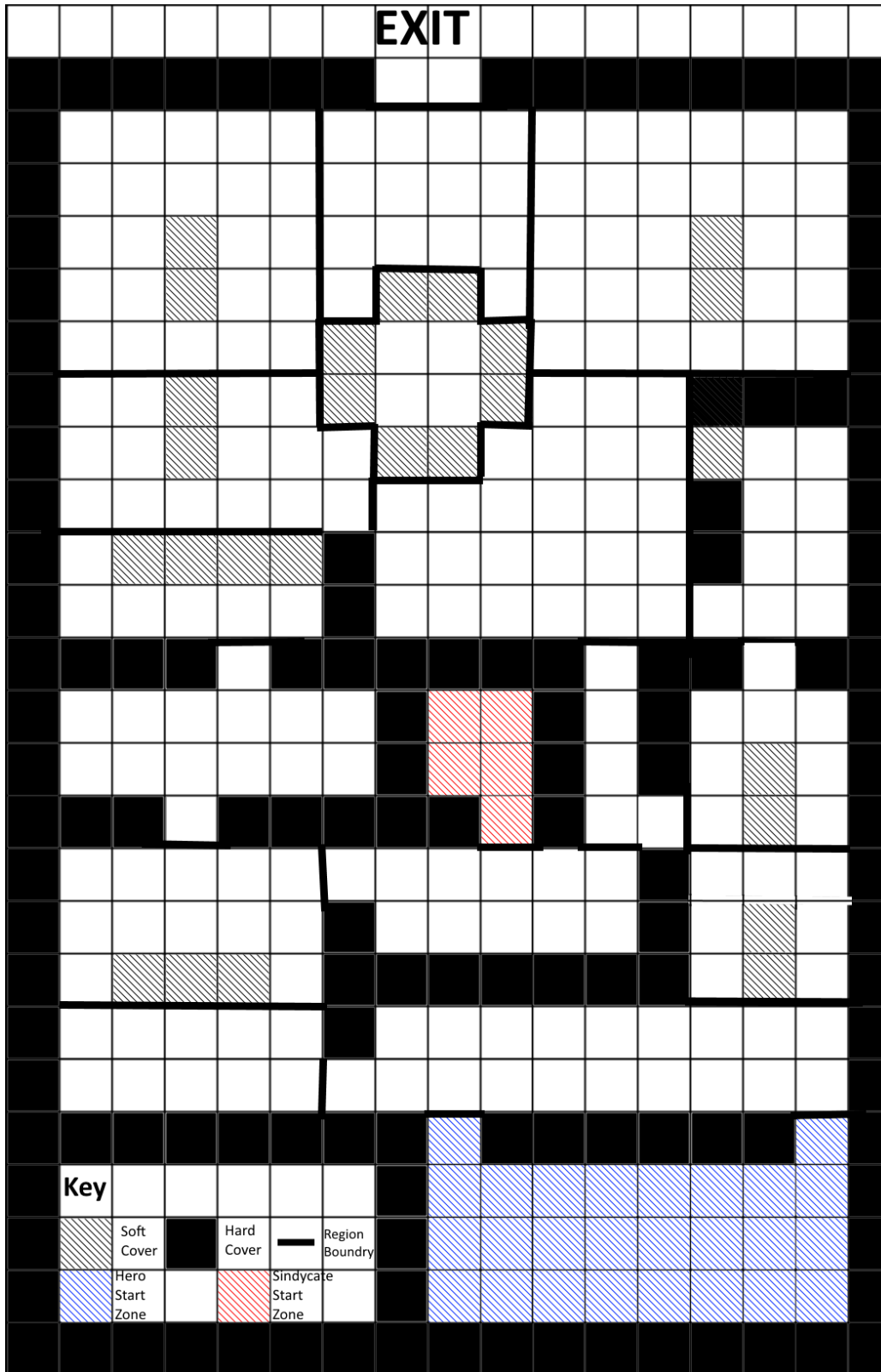
Inferno of Victory Version 2.0

The most dramatic change I made to this version was to make there be three game boards instead of one, with each board representing a different floor of the building. This was because the first play test revealed that the Sindycate was much more powerful than the heroes. However, this was not due to statistical unbalance, but rather it was due to the fact that the Sindycate start zone was too close to where the heroes needed to pass by. To solve this, I initially thought of simply reorienting the exit of the Sindycate start zone so that it faced to the right, and thus the henchmen would have to travel further to get to the heroes. However, this would only make the heroes have one optimal path to the exit. Additionally, I realized that the game board might not provide a varied enough experience for the players, and I could not think of a way to make a varied experience fit on a single sheet of paper.

Thus, I made three new boards. Each board has the Sindycate start off to one side, which gives the heroes ample room to maneuver to the next floor. Additionally, the game board can be long enough to give a varied experience while still giving the Sindycate plenty of chances to kill the heroes. In the boards themselves, I reused some elements from the first board, such as the circular cover area, that I thought worked well to reduce the amount of time designing. Moreover, each board has some strategic options available to the hero player, such as taking the safe route with all of the cover or rushing past the Sindycate start zone while they are repositioning.

The second major change was that I added an example of attacking to the game. I did this because there was some confusion as to the exact rules for this during the first play test. I did not make an example for anything else, such as movement, because I wanted to have play tests to confirm what would or would not be a problem area in the players' understanding of the rules.

The final major change was that I removed momentum because it added too much complexity when the hero players had enough incentive to rush to the end anyways. I also changed the pipe bomb to explode instantly if the hero player was lucky. This was to make the heroes somewhat more powerful, which helped with the problem of them getting bogged down by enemies.

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LOTS OF PAGES REMOVED

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Additional Versions

Different Ways to Balance the Syndicate

When thinking of ways to make it possible for the hero player to win, I came up with many ideas that seemed like they would work, but I did not implement them into the final version for various reasons.

One idea I had was to make the henchmen take one turn to respawn. This was because one of the big complaints from play testers was that the henchmen could respawn and get back into the action too quickly for the players to kill them all. This would in fact allow the player to effectively clear out an area and create low points of the intensity curve. However, it also might give the hero player the opportunity to freely run far ahead past where the Sindycate could possibly catch up. This could work if I had more than two maps, but I did not have the time to design all of these maps and play test them.

Another idea was to have one henchman spawn every turn, regardless of whether one died or not. This would add an interesting element to the game of the Sindycate forces slowly gathering up forces over the course of time only to lose a bunch of henchmen in one bad engagement. This would increase the feeling of permanency derived from killing the henchmen, and it would allow the hero player to have periods in which they do not have to contend with the Sindycate as much. It would also increase the intensity as the Sindycate gets more and more henchmen to kill the heroes and it would add more encouragement for the hero player to get to the exit quickly. However, I did not implement this because it would involve more play testing to determine if the heroes deal enough damage to handle large groups of henchmen, which I did not have time for. Additionally, it would allow the Sindycate to mob their henchmen in the lobby while the heroes made their way down the building.

World War 2 Battle

Back when I was brainstorming for this project, I had thought about making this system into a game about the battle for Stalingrad in World War 2. This is how I would make that work.

The system itself would be practically the same, but with both sides having limited resources. The Nazis would have a limited amount of resources to spawn strong units, while the Soviet Union would have a constant income of resources to spawn weaker units. The goal of the game would be to take certain points on the map, though for the Soviet Union it could also be to wait for reinforcements to arrive while defending said points.

This game would also have various units not in the current version of the system, such as tanks and machine guns. The tanks would be units that take up multiple spaces and be immune to most light arms fire. The machine guns would be units that can fire multiple times per turn, but only after setting up the gun. There could be other mechanics such as re-manning machine guns whose crews have been killed and units riding on tanks for a movement bonus.

The reason I create Inferno of Victory instead of this game was that Inferno of Victory was simpler to create. Having asymmetric combat was a big enough risk in and of itself, and having to balance resources and more unique units without having a significant engagement boost did not seem worth it.

Inferno of Victory With an Actual Inferno

A possible addition to Inferno of Victory is making the building the heroes are trying to escape be on fire.

The way this would work is that there would be certain spaces that have fire tokens on them, and every turn every space without a fire token that is adjacent to a burning space is lit on fire. Every time a unit passes over or stays on a space that is on fire, they take one damage. I could also add new unit abilities such as the Eliminator igniting spaces that he shoots at and the cop throwing a Molotov cocktail instead of a pipe bomb. There could be interesting mechanics like henchmen pouring gasoline on spaces to attempt to drive the heroes through certain routes and having sections of the board get damaged or destroyed by the fire. I could add equipment in the form of fire extinguishers that can put out fires when in the hands of anyone but a henchman.

This encourages constant movement and it makes the board change over the course of the game.

The reason that I did not implement this is that I only thought of it three hours before the submission deadline. Additionally, it adds a lot of complexity that I would have to test out in order to insure that it worked. Finally, the process of placing down possibly dozens of fire tokens every turn might disrupt the game flow, even though it is such an extremely simple process.

Play Tests

Here are 2 of the 5 play test reports that I wrote for this project:

Playtest 1: Version 1.0

Date: 7/9/15

Who I played with: Victoria Dominowski (DELETED_EMAIL@EMAIL.COM)

Isaac Dayton (DELETED_EMAIL@EMAIL.COM)

Questions I wanted to answer

1. Did players enjoy the theme in the context of the game?
2. Did one player end up being overwhelmingly more powerful at some point in the game?
3. Did the weapons feel like they were not accurate enough?

What Happened in the Test

Both of the players, and several of the surrounding TAs, greatly enjoyed the theme of the game. The player liked naming their characters. The players also stated that they were genuinely excited to start the game. Isaac liked the idea of the enemies spawning inside of an elevator, even though I at no point labeled the Sindycate start zone an elevator. However, the players did not talk much about emergent story elements in the game, which is likely due to the slowdown that occurred early in the game.

The rules went smoothly, with the players understanding all of the basic concepts of the game with only a few misunderstandings. The players set up the game pretty much perfectly, and they commented on how the color coding helped them understand which components were which. There was an issue with the players understanding the momentum. They initially completely forgot about it, and when I explained it to them, they did not like that the henchmen had this ability. I made an on the fly decision to make henchmen not have momentum benefits. They still had trouble remembering to factor momentum into their die rolls throughout the game. Victoria also did not understand several of her units' abilities, possibly because of her skimming through the player sheet and also possibly because of poor formatting on the player sheet.

The players used some strategy to attempt to defeat each other. Victoria split up her heroes on opposite sides of the map in the beginning to fool Isaac into thinking that she was going to send them in two different groups. It seemed like both players felt like they were powerful from the way the conversed with each other. However, there were some problems with the strategic elements of the game. Neither player used slow motion at any point in the game. Victoria complained that her heroes did not have enough health to combat Isaac's units.

Near the end of the play test, the players got stuck in the second room on the left. They continued to fight in this room for several turns. For most of this fight, the players seemed engaged with the game. However, Victoria's heroes eventually got overwhelmed by Isaac's henchmen because they could respawn and get back to her within two turns, at which point the test ended. What is perplexing is that Victoria could have simply left the room and her heroes would have almost certainly survived. The likely reason that she stayed was that she felt like she needed to clear the room before leaving it, which would be impossible considering the room's proximity to the Sindycate start zone.

Something else worth noting is that Isaac stated that he had to leave early, but he was so engaged with the game that he forgot to leave when he said he would.

The Good

- The players greatly enjoyed the theme and the story.
- The players enjoyed the base mechanics of the game.
- The players used some strategic and tactical methods throughout the game.

The Bad

- The players had difficulty understanding the momentum mechanic.
- The hero player is lead to think that they need to clear a room before continuing through it.

The Raw Data

- Time spent reading the rules: 7 minutes
- Times players had to look back at the rules: 1
- Total time spent playing: 24
- Isaac's self-reported overall engagement: 4 out of 5
- Victoria's self-reported overall engagement: 3 out of 5

Conclusions

Answered Questions

1. Players enjoyed the theme immensely.
2. The Sindycate player could easily overwhelm the hero player if the hero player did not keep moving.
3. The weapon accuracy did not really come up as a problem in this test.

Data Analysis

- The time spent reading the rules was acceptable.

- The number of times the players looked back at the rules was significantly reduced by me explaining certain concepts to the players.
- Isaac stated that he greatly enjoyed the story of the game. Throughout the game, he added little story tidbits like how the Eliminator was perpetually sliding around on his back and how his start zone was an elevator. However, his engagement was brought down by the fact that he could easily defeat Victoria.
- Victoria initially enjoyed the game immensely, but she did not like being defeated once she got bogged down by the henchmen.

Recreated Intensity Curves

These are the intensity curves that I have recreated from the notes I took from the play test. I could not gather the exact curve during the test itself because I cannot make the intensity curves while simultaneously taking detailed notes.
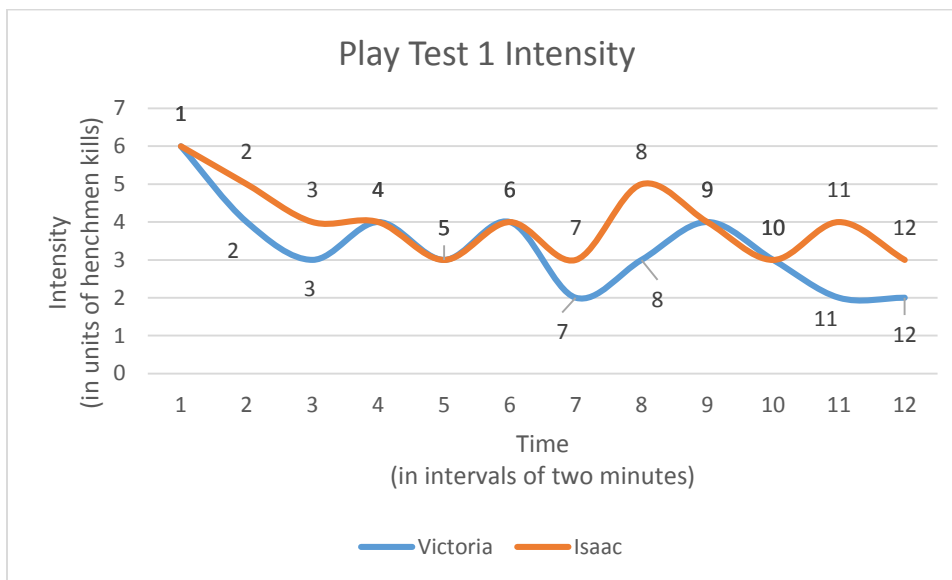
Data Labels
1. Test begins, read first paragraph.
2. Continue reading rules.
3. Continue reading rules, Victoria gets more bored by them than Isaac (based on the fact that she skimmed through them.
4. Game begins.
5. Victoria fools Isaac.
6. Position for the fight in the second room on the left.
7. Fighting begins, Isaac and I have to explain the rules for momentum and cover.
8. Fighting continues, Isaac moves the Eliminator into position and fights with him.
9. Fighting continues.

10. Fighting continues, Victoria gets ground down.

11. Fighting continues, Isaac continues to swarm Victoria.

12. The blue hero gets killed, the test ends because Isaac had to leave.

Play Test 3: Version 3.0

Date: 7/16/15

Who I played with: Mitchell Regan (DELETED_EMAIL@EMAIL.COM)

Dean Hulse (DELETED_EMAIL@EMAIL.COM)

Questions I wanted to answer

4. Did the players need examples for movement and/or using the stairs?
5. Did the new game board and statistical changes make the game for the hero player possible to win?
6. Were there any other polish changes to make to the rules?

What Happened in the Test

As usual, the players enjoyed the theme. They named their characters and came up with the occasional amusing story for what was happening in the game. However, the players did not seem to enjoy as much as the ones in the previous test.

The players initially got distracted by conversations while reading the rules. This lead to the time spent reading the rules being longer and it contributed to misunderstandings with the rules. Dean assumed that the entire map was a grid map because he did not see the thicker lines. Later on in the test, there was also some confusion over the exact rules of stairs. Players wondered whether or not they could shoot up or down them, whether their units could move out of the stairs after going inside of them. However, both players commented that the rules were fairly easy to understand as a whole.

Once the game started, the players began to use fairly interesting tactics and strategies. Mitchell placed all of his henchmen on the third floor, but he placed the Eliminator on the second floor. This was because he wanted to stop the heroes from rushing down the stairs, and thus he could surround the heroes with his henchmen. However, Mitchell had also clumped his henchmen together in one region, which allowed Dean to throw a pipe bomb at the henchmen and kill all of them. Throughout the game, the players used slow motion to great effect, but they stated that they wanted to ration it throughout the maps.

Unfortunately, Dean got bogged down at the stairwell, which slowly allowed his heroes to get ground down to the point where the blue hero got killed on the second floor. At this point, Dean had killed seven henchmen and dealt two damage to the Eliminator. He also stated that he could have won if there were only two floors, since the green hero had some adrenaline left and could sprint to the end of the game.

The Good

- The players enjoyed the theme.
- Both players employed interesting strategies and tactics.
- The players felt powerful because of their units' abilities.

The Bad

- The heroes still cannot win the game due to getting stuck on points on the map.
- The players misunderstood a few key concepts of the game.

The Raw Data

- Time spent reading the rules: 10 minutes
- Times players had to look back at the rules: 3
- Total time spent playing: 46 minutes
- Mitchell's self-reported overall engagement: 2 out of 5
- Dean's self-reported overall engagement: 3 out of 5

Conclusions

Answered Questions

4. The game needs examples for both.
5. The hero player is still at a large disadvantage.
6. Nothing else really came up during the test.

Data Analysis

- The time spent reading the rules was bloated somewhat by the conversation that occurred while reading them and the questions the players had. Other than that, the rule reading time was acceptable.
- The times the players had to look through the rules was very good considering some of the confusion the players had.
- The total time spent playing was acceptable considering that the players went off topic a lot during the test. With all three boards, the game would go on for far too long, but I am removing a board anyways, so this should not be a problem in the future.
- Mitchell's engagement was low because he felt like the stakes were too low for his faction, and thus he got somewhat board towards the end of the game.
- Dean's engagement was kept up by the sense of power he had from using the pipe bomb and slow motion. However, he was unegaged when he realized that it would be impossible for him to win. This problem could be solved by making victory a possibility for the hero player.

Reconstructed Intensity Curves

Play Test 3 Intensity
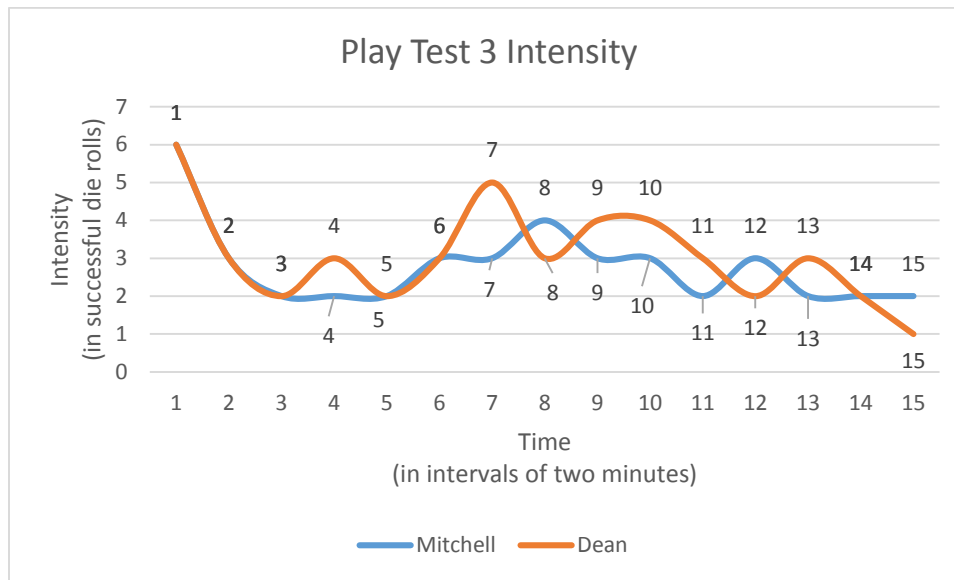
Data Labels

1. Test begins, players read the rules.
2. Players get distracted.
3. Continue reading the rules.
4. Continue reading rules, get distracted again.
5. Finish reading rules, read the player sheets.
6. Game begins, players use interesting strategies.
7. Dean uses a pipe bomb.
8. Continue fighting.
9. Continue fighting.
10. Continue fighting, Dean gets to the stairs.
11. Dean's heroes start fighting over the stairs.
12. Continue fighting, Dean gets bogged down.
13. Continue fighting, Dean gets down the stairs.
14. Continue fighting, Dean fights his way off of the stairs.
15. The blue hero gets killed.

Math Analysis

Here is the mathematical analysis I did for the game's various systems:

Math Analysis

Expected Damage of Individual Units

Each unit deals one damage, thus the expected damage of a unit is the chance to hit something. Thus the expected damage of a unit is:

$$\frac{Possible\ successful\ roll\ values}{Total\ number\ of\ roll\ values} = Expected\ damage$$

Unit type	Expected Damage *Normal* *With the target in cover* *With special ability*
Cop	$\frac{4}{6} = .66$ $\frac{3}{6} = .5$ X * .33, where X is the number of targets in a region
Triad boss	$\frac{3}{6} * 2 = 1$ $\frac{2}{6} * 2 = .66$ 1
The eliminator	$\frac{5}{10} = .5$ *When close to* $\frac{7}{10} = .8$ $\frac{4}{10} = .4$ $\frac{6}{10} = .7$ N/A
Henchmen	$\frac{2}{6} = .33$ $\frac{1}{6} = .16$ N/A
Totals for the Heroes	1.66 1.16 1 + X * .33

Totals for the Sindycate	1.82 *When close to* 2.12
	1.04 1.34
	N/A

The apparent damage advantage of the Sindycate goes away when one takes into account the expected damage of the hero abilities. However, the Sindycate is still extremely strong when fighting the heroes in close corridors, which helps to encourage the hero player to always be moving.

The number of turns that the heroes can survive sustained combat are:

$$Total\ hero\ health - E.D.of\ the\ eliminator + E.D.of\ a\ henchman \\ * number\ of\ henchmen\ in\ range$$

Thus, in normal combat:

6 - .5 + .33 * X = 5.5 - .33 * X

Each of the possible values for henchmen are shown here:

5.5 - .33 * 1 = 5.22 turns
5.5 - .33 * 2 = 4.84 turns
5.5 - .33 * 3 = 4.51 turns
5.5 - .33 * 4 = 3.68 turns

It is important to note that there will likely never be a case in which the hero player is fighting all of the henchmen at once, since they will almost certainly kill off a certain number of them each turn.

This is important because it provides me as a designer a way to determine exactly how good a unit is at dealing damage in normal situations. Not only does this make it easy for me to see how quickly a unit can kill another unit, it also provides context for me when I am deciding what abilities I can provide to different classes while still somewhat maintaining balance.