

# Postmortem: Scarekeepers

This is my first public postmortem. I'm not sure who will ever read this, but it's really more of an opportunity for me to reflect upon my own work and determine what aspects of my process needs work for the next iteration of projects. I hope whoever reads this at least enjoys hearing about my process and the things I consider as I work on projects like these. I've broken down this postmortem into sections corresponding to what would be done by separate teams in a professional environment.

## **Programming/Engineering**

I felt this was one of my better architected games in terms of the codebase. I found myself taking moments to stop and preplan before coding many times while working on this. The best architected aspect I would argue was the zombie prefabs. Each had an EnemyMovement component that had abilities like MoveRight, MoveLeft, Idle, ThrowCup, etc. I implemented a ZombieBehavior component that handled the AI part of the prefab and decided based on which zombie type (regular, flipping, or boss) which movement to make and how frequently they changed decisions. Late in development when I was making multiple kinds of zombies, I found it very easy to add new zombie types and behaviors and also being able to adjust their speed/damage/etc. without breaking anything.

I still feel like I'm hardcoding a lot of things in my GameManager and adjusting them after the fact within the script instead of in the inspector. It's little things like how long a character is stunned for after being hit and how many seconds between each decision a zombie makes or the frequency of item drops. I should in the future create a TimeManager that can globally handle all these things. I created a ColorManager with static color member variables that was used frequently throughout the game to ensure feedback text colors matched particle effects and lighting and I found it very useful.

Overall, it's nice to see that my professional coding ability has improved throughout college and I never felt "stuck" anywhere in the project which is a nice feeling to be competent in such a daunting area of game dev for so many people.

## **Audio**

The music for the game was solid. I didn't take too many passes at it to improve upon it because it wasn't my most important priority, but I did enjoy making it and I think the theme fits

well with the game. I thought just having the lighting for the main menu was a great decision as it showed how less sounds can often have a stronger impact than try to cram more sounds in. This idea was inspired by looking at the first Red Dead Redemption menu that has no music just gun sound effects as you choose options.

The sound effects were extraordinarily fun to make. I didn't make the gun sounds and I'd like to be able to make sounds like that with my computer so that's something to work on. The zombie and player hit sounds and ambient noises however I made and I learned a quick way to slice up an audio clip and export it as multiple files which made making recordings of me groaning for the zombies and implementing them a breeze. I think I could use my voice more for things now that I have such a streamlined process for getting them in game.

## **Art**

This is the first game where I've created all of the art entirely on my own. I learned a TON leading up to and during the development of Scarekeepers. I thought my animations were ok and I used only keyframes for the animations to make it look more like a retro arcade game, but I hope to get better so that my animations can look for fluid. I've learned quite a bit about the principals of animation in my free time and should start using rules like squash and stretch. I did slow down the animation speed for the boss enemies so that they would appear more massive and slower as if they carried more weight than the smaller zombies.

As for the actual pixel art itself I thought it was fine. My best work was the zombie sprites and I thought they looked especially good when using indexed coloring to make new colors of zombies. I had a ton of fun making them into the bartender and bouncer by just making minor changes to their character art. I thought the bar sprites like the tables, TVs, bars, etc. fit in really well and because they were darkened to fit into the background, they really gave the bar a lot of life. The windows flashing with the lighting was a perfect touch to give the bar a sense of atmosphere. I still have a huge way to go with my artistic ability but I thought this was an excellent start.

## **UI/UX**

I hate that I used a health bar. It's the most overdone health display in the book and I should push myself to get more creative (same with the ammo element). I want to find new ways to display those things as I was already getting annoyed with how many icons/images were on

screen (health bar, live count, zombie count, pause menu, score, time, ammo count). Nonetheless I thought they did the job.

I thought the user experience was fine. I made clear simple menus that were easy to navigate and use. I do wish I had somewhere to explain the difference between main game and endless mode before you clicked on them. I made a big emphasis on juice for feedback to the user (i.e. screen flashes when you get hit, screen shake when you shoot) which was something I learned in my Game Dev class this year at school. It really pulled the whole game together when the colors were flashing and the feedback text would pop up and tell you the round was over or was starting. I correlated the light colors to the feedback text which tied everything together.

## **Summary**

Overall, I had an excellent time making this game. There's a general rule that as you're learning game dev to keep your projects to 1 month so you don't waste time tweaking a minor project and this is the first game where I've actually stuck to that rule. I started the game March 7 and ended April 4. Every other project I've made I've found myself tweaking it endlessly when I really should just put it down and move on. I'm at a point now in my abilities where I just want to work more on making fun games and less on games that will teach me new things. When I see cool indie projects, I imagine a team who sat down and said "what's the most fun idea we can make into a game" and I want my process to be more like that. I'm going to start compiling my own sound effects library, art library, and code library (like health scripts and other big general ones) so I can accelerate that process when I get there with other projects. That being said, Scarekeepers I thought turned out great. I've received a ton of positive feedback and only a few minor bug fixes to make. There's always room for improvement but it's nice to make a fun game just for yourself every now and then.

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