Case Study: FPS

Game Development Foundations

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What is a First Person Shooter?

- Uses a first-person perspective
 - Traditionally, you never see the player
- Focused on gun and projectile weapon-based combat
- Traditionally shows the protagonist's arms at the bottom of the screen, carrying a weapon



Seminal FPSs

- First-Person Shooters that define the genre:
 - Wolfenstein 3D (PC, 1992)
 - Doom (PC, 1993)
 - Duke Nukem 3D (PC, 1996)
 - Quake (PC, 1996)



Seminal FPSs

- Golden Eye (N64, 1997)
- Half-Life (PC, 1998)
- Halo: Combat Evolved (XBOX, 2001)





Modern FPSs

- Almost all FPSs will have a single-player mode, but most modern games will also contain a multiplayer aspect
- Multiplayer game modes include:
 - Deathmatch / Team Deathmatch
 - Capture the Flag
 - Search and destroy
 - Last man standing



FPS Mechanics

Movement:

- Core movement involves forward / backwards, strafing, jumping, crouching, crawling, etc.
 - Player movement has evolved a lot since the early FPS games. Its an important aspect that can be difficult to get 'feeling' right
- Other mechanics can be made based on movement:
 - Hiding in shadows (Splinter Cell)
 - Rocket jumping (Quake)
- The camera is locked in a first person perspective and often includes a slight rocking motion when the player moves to increase realism
- Sounds of breathing and footsteps also increase realism



FPS Mechanics

- Shooting weapons is the most important/satisfying mechanic in this genre
- Games in the genre often distinguish themselves by their selection of weapons
- Different weapons have different abilities, affecting enemies in different ways
 - Enemies may require strategy to overcome



FPS Mechanics

- Other mechanics found in FPSs:
 - Cover systems use stationary or moving obstacles to avoid damage (Gears of War 2)
 - Enemy A.I (F.E.A.R)
 - Environment-based puzzles (Half-life)



Making a Great FPS

- Have interesting movement
 - Not every game needs to make you a super wall-running ninja. They just need to make movement interesting.
 - Think about double jumping, wall jumping, mantling over walls. This can boost the speed of the game and make shooting more interesting
- Have interesting places to move around it
 - Have an interesting environment
 - The vertical level design of Half-Life 2 was an important feature
 - Level design should empower and entice the player to move



Making a Great FPS

Worthy Opponents

- The job of a good enemy in an FPS is to move the player around the map
- Enemies should push you to use all the elements of the game

Awesome Guns

- Guns should look cool in our hands, sound amazing, and help us engage with the game space
- The feedback from firing is important muzzle flash, recoil, sound, camera shake, etc. Make it rich and meaty



Summary

- First Person Shooters use a camera set to a firstperson perspective
- They concentrate on weapons-based combat
- Player movement and shooting weapons are the core mechanics in this genre
- Modern FPSs also have a strong multi-player component



Extra Reading

- Article: History of First-Person Shooters
 http://uk-microsites.ign.com/history-of-first-person-shooters/
- Article: Five Things Every Great First-Person
 Shooter Needs
 http://kotaku.com/five-things-every-great-first-person-shooter-needs-1653281844



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