

Case Study: Top-Down Shooters

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Game Development Foundations

Last modified 02/02/16 by Sam Cartwright

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What is a Top-Down Shooter

- Top-Down Shooters use a top-down perspective
 - Although sometimes a side-view perspective is used
- Feature a lone player character shooting a large number of enemies while dodging attacks
 - The player is often a plane or space ship
- Sometimes known as 'shumps' (shoot 'em ups) or 'bullet-hell' shooters
- Games in this genre call for fast reactions and memorization of attack patterns

Seminal Top-Down Shooters

- Games that define the genre:
 - Space Invaders (Arcade, 1978)
 - Galaxian (Arcade, 1979)
 - Defender (Arcade, 1980)
 - Xevious (Arcade, 1982)



Seminal Top-Down Shooters

- Batsugun (Sega Saturn, 1993)
- DonPachi (PS2, 1995)
- Radiant Silvergun (Arcade, 1998)
- Geometry Wars: Retro Evolved (XBOX, 2008)
- Touhou Project (PC, 1996-2013, not shown)



Top-Down Shooter Mechanics

- Scrolling Camera
 - Typically from a top-down perspective, but sometimes using a side-view perspective
- Large Numbers of Enemies
 - Enemies behave differently depending on type
 - Attack in formations that the player can predict

Top-Down Shooter Mechanics

- Rapid Enemy Fire
 - Enemies shoot waves of bullets towards the player
 - Bullets typically form patterns
 - The player requires quick reflexes to avoid being hit
- Shields and Power-ups
 - Power-up enable a variety of player weapons, or regenerate the players shields or health
 - Death typically removes all power-ups collected

Making a Great Top-Down Shooter

- Enemy bullets should always be visible
 - Ensure a high contrast between background and bullet
- Off-screen enemies should not shoot
- Bullet collisions must be accurate
 - Enemies should also give some sign of being hit (shoot sparks, flicker or shake)

Making a Great Top-Down Shooter

- More explosions
 - Everything that can be destroyed should explode
- Predictable enemies
 - Enemy health should be shown or predictable
 - Enemies should move in predictable waves
 - Always indicate the approach of a boss
 - There should be a way out of *every* situation

Summary

- Top-Down Shooters use an overhead view focusing on a lone player character
- The player must avoid large numbers of enemies and waves of bullets
- Enemies must move in predicable ways
- The focus should be on fast player reflexes and memorization of attack patterns

Extra Reading

- Article: The Anatomy of a Shump
<http://shmuptheory.blogspot.com.au/2010/02/anatomy-of-shmup.html>
- Article: Top-Down Shooter
[http://self.gutenberg.org/articles/top-down shooter](http://self.gutenberg.org/articles/top-down_shooter)

References

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