

CONSTRUCTION SIMULATION

GENRE SUMMARY AND ANALYSIS



- There are many diverse game types within the Simulation genre, but they tend to share a few common elements between them.
 - Focus on details and having mechanics that are accurate to how their subjects function in reality.
 - There is a fine balance between the complexity of an action in the real life subject of the game versus the level of abstraction required in the game to simulate that action in a way that is fun - Actions that are overly tedious can have more abstraction so as not to take away from the game's pacing and flow, but too much abstraction makes it feel disconnected from its real world actions and less like a simulation.
 - There are generally two common world scales to these games, with the player either managing the resources and moment to moment minutiae of a large complex or park, or focusing in on creating or operating a smaller more detailed organization, vehicle, or building (etc.).
- These games tend to split in a few specific "phases" of gameplay, involving:
 - Building, creating, or modifying the subject of the simulation.
 - Testing or "operating" the subject of the simulation.
 - Receiving a score or resources based on how well the subject was created or operated, and then using that score or resource to unlock new projects.

ESSENTIAL GAME ELEMENTS

- The challenge of these games is connected to the details and complexity of the simulation - the more elements that have to be managed, kept track of, and balanced against, the more fun and difficult the game is for the people who enjoy this genre.



- A set of goals or limitations are used to create the parameters for specific missions or “levels” in the game. These force the players to build or manage the subject of the simulation in a specific way to incentivize the player to try new tools and mechanics of the game. Players are rewarded with more resources or unlocks for succeeding within said parameters.
- Having a variety of tools or vehicles to learn, use, or operate are an important element of the player mastering the game systems. Having many options of what to create gives the player a greater sense of freedom and creativity.

VARIATIONS AND HOOKS

- Different subjects for the simulation to focus on tend to provide the most variety and appeal to specific players who enjoy those subjects in real life.
 - Players who like managing large interconnected systems will enjoy creating cities, parks, or managing world economies.
{CITIES SKYLINES, ROLLER COASTER TYCOON, FACTORIO, PLANET ZOO, PLANET COASTER}
 - Players who enjoy more specific complex tasks will enjoy these games if they focus in more on creating specific buildings, vehicles, or performing smaller series of actions in greater detail.
{KERBAL SPACE PROGRAM, HOUSE FLIPPER, ANIMAL SHELTER, FARMING SIMULATOR SERIES}
- Providing a large quantity of options and tools related to the subject of the simulation is often a major draw for these games.
- Creating skill challenges related to the subject of the simulation let's the player flex their mastery of the game's systems and adds a new dynamic beyond the pure creation and management aspects of the game.



USER GENERATED CONTENT OPPORTUNITIES

- Having a system to set up to upload specific blueprints for things to be created allows players to express their creativity while giving other players new and interesting objects and tools to build within the mechanical parameters of the game.
- Let players create or set the limitations and challenges for specific missions. These can be uploaded as unique scenarios for players to browse and attempt to accomplish, and can provide extra challenge and replayability.
- Having an online database for player creations to be uploaded allows people to share their unique builds and layouts. This is a major incentive to creativity and allows people to show off their hard work. A rating system in tandem with this database lets the best works rise to the top and lets players have a sense of pride in what they've created or pushes players to get better at the game in order to have their work be higher rated.

WHAT MAKES CONSTRUCTION SIMS FUN?

The engaging aspects of construction simulations are related to mastering the tools and systems used to create the subjects of the simulation, increasing the player's knowledge of the game's systems in order to more efficiently manage complex creations, and having the freedom to create the simulation subjects in the way the player wants.

- These games should provide a variety of challenges and unique opportunities for the player to explore and master the different tools and mechanics of the game.
- Strong games in this genre have complex systems and modifiers that interact with the subject of the simulation and require the player to learn them well in order to properly manage and efficiently deal with complications.
- Providing the player a multitude of real world options and subjects related to the simulation gives the player more to do in the game and provides more opportunity for learning and mastering of the game.



BEST OPPORTUNITIES FOR GAMES IN THIS GENRE

- Focus on Less Explored Subjects - The nature of these games has players interacting with a very specific type of simulated activity or management. Digging into less explored subjects or more specific activities can draw in new players while also still appealing to players already interested in Simulation games.
- Connect More to the Subject in Real Life - Any skills the player learns in the game that can be easily applied to creating the same subject in real life is desirable. Less abstraction in the simulation's systems (while maintaining the fun and pacing), the better, as the player can now apply some of that knowledge to performing the actions from the game on a more one to one basis with reality.
- Virtual Reality Integration - As VR technology gets better, it becomes a more perfect fit for construction simulations, especially ones that involve manipulating specific tools or vehicles. Well integrated VR increases immersion and gives the player a closer one to one connection to the actions they're performing and the subject they are creating or operating.
- Multiplayer Integration - Many of these games are single player, but players still enjoy sharing their creations and accomplishments in these simulations. Allowing players to create things together or giving them more flexibility to share their creativity adds a lot to the replayability of the game.

NOTABLE EXAMPLES WITH EXCEPTIONAL GAME PROGRESSION

- HOUSE FLIPPER - This game involves going through all the major aspects of building or renovating a home. Provides all the core elements of simulating this activity, with various phases of renovating and building and a variety of real world tools used during those phases to accomplish goals. Provides requirements and limitations to challenge the player, as well as free building options to let the player flex their creativity.
- CITIES SKYLINES - One of the best games that allows players to manage a complex series of systems related to running a city. The player has to balance multiple resources and requirements in order to keep things running smoothly and to keep expanding and progressing through the game.
- KERBAL SPACE PROGRAM - A more abstracted version of a spacecraft builder, but with a very robust physics system to add more realism to this simulation. Has a strong core gameplay loop of building a rocket, testing the rocket, and then seeing how well the rocket does when balanced against the different physics systems involved in launching a spacecraft.



FUTURE OF CONSTRUCTION SIMULATIONS

- As graphics technology becomes more robust, these simulations can achieve a higher fidelity and more detail, with more complex systems and interactions. This allows for the simulations to more closely mirror their real life subjects and let players have a more in depth, one to one experience.
- Virtual Reality is a major up and coming tool for this genre of games to use. VR allows for player's to feel more immersed in the activities they are engaging in, and connect better with how to accomplish moment to moment actions in the game. Rather than hit a button to switch to turn a steering lever, the player will reach their hand out and "grasp" it in order to do the same action. VR allows designers to take away some abstraction while preserving game flow.
- Another big step for this genre is the inclusion of or more multiplayer cooperative building options. Many of the subjects of these simulations require multiple people in real life in order to complete them, it only makes sense that games should mirror that. This also allows for the game to have more moving parts and complexity that multiple players working together can deal with better than a single player on their own.

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