

Innovation in the Real-Time Strategy Genre

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Introduction

Gather resources. Buy some units. Construct a building. Gather more resources. Buy more units. Construct more buildings. Now, do it all again. Rinse and repeat. Eventually, amass a huge mob of units. Drag-select them all and attack the enemy base. Does this sound familiar?

Hello. My name is Alex Kutsenok. I am the lead designer of Space War Commander, a new real-time strategy game by Dreamspike Studios (www.dreamspike.com). Space War Commander is finally going gold, and I feel like this a perfect time to share some of my thoughts on game design.

The formula described above has appeared in almost every real-time strategy game in the last 15 years. Players have mined gold with peons and built millions of little towns with 8 or more buildings. But why? How many strategy gamers actually boot up an RTS and say, “Boy, I really want to gather corn today!” Probably, none. Who wants to collect resources over and over? Who wants to build buildings and countless upgrades for an hour just to get to the “good part” of fielding an awesome army? In this article, I discuss how game designers can change how resource gathering is handled and also do away with base-building to make RTS games more engaging and original.

Diversify the Way Resources are Earned

At the heart of any real-time strategy game are resources, which I’ll just refer to as money from now on. Money must somehow be obtained and then used to buy units. We want to make the process of acquiring money an interesting one. For example, having six kinds of resources that must be mined, dug, chopped, planted, picked up, or caught doesn’t necessarily constitute six different gameplay experiences. If mining gold and farming vegetables both involve selecting a unit and right-clicking on something to assign it to that task, these tasks are essentially the same. It doesn’t matter if one unit is called a peon and the other is a farmer. Adding different coats of paint to redundant activities may trick the player initially. However, she will soon realize that making money is a tiresome experience that involves continuously selecting units and right-clicking on spots that generate money, over and over.

Rather than make a grueling resource gathering system more interesting, some designers may argue that it can somehow be made better by having the AI handle as much of the process as possible. For example, a map may have six different resources that must be collected at six different places, all at the same time. Since most players either don’t want to or can’t handle so much work, one may think it would be logical to program one or more AI assistants to automate these tasks. However, this is not the

answer because it doesn't address the fundamental problem. If a game component is so not fun or so difficult that the designers have to make the AI do it, why have it in the game at all? Why waste the time and resources to implement something that the player will not appreciate or even take part in?

A different response to the problem of boring resource gathering is to eliminate it entirely. A few RTS games (like Myth the Fallen Lords and World in Conflict) completely abandoned money as something to be collected. These games provide the player with a fixed number of units or a finite amount of money that can be spent. However, I feel that it is still possible to make acquiring money a fun and original experience. The key is to have several completely different ways to earn money.

For example, in Space War Commander, we came up with the Big Three. That is, three unique and viable ways to make money:

1. Control of planets and asteroids
2. Trading of cargo
3. Scavenging from destroyed enemy ships

Controlling planets and asteroids involves going out, finding them, and holding them with a ship as enemies attempt to wrest control away. Controlling resources is probably the most conventional of the Big Three because it involves sitting on something as it slowly earns the player money. However, the game maps are built to make it difficult and often impossible to simply sit there as the money rolls in. In fact, the player is frequently forced to abandon planets because someone else with more firepower wants them.

Trading cargo involves sending Freighters between planets and asteroids to buy/sell goods. The player must invest in a fleet of Freighters to make trade runs. These runs take a while to execute but can yield large pay-offs. Furthermore, these runs may involve subtasks like protecting one's trade fleet as it passes through contested sectors or places where Pirates are found.

Finally, the player can buy Scavenger ships and make a lot of money simply by hunting vulnerable enemy ships. Of course, these ships must be tracked and caught, which requires a small fleet of ships devoted to this task. The hulls of destroyed enemy ships are sold for scrap to earn the player money.

Notice how each of the Big Three involves a completely different kind of gameplay. Controlling resource means one has to fight for their possession and devote ships to holding them once they are won. On the other hand, trading involves thinking about the supply and demand of various planets and asteroids, while deciding which trade paths are shortest and least dangerous. Finally, Scavenging is all about noticing vulnerable enemy ships and pursuing them when the opportunity presents itself. On some maps, a player might end up doing all of the Big Three, while other maps only make it desirable to pursue just a single one.

Please note that as a strategy game, SWC doesn't let the player simply do whatever he/she wants. It is not a "sandbox game." Each map has characteristics that encourage certain strategies and not others. Making too many incorrect decisions results in a loss, so the player is forced to explore all three methods of making money and figure out which is best for a particular situation. Thus, we force the player to diversify his method of earning cash, which makes the game more interesting.

This approach of weaving together several viable and truly unique ways of making money is central to making resource gathering fun and engaging for the player. I am sure that there are countless resource gathering processes beyond our Big Three that could make future RTS games a lot more enjoyable. For example, one completely different idea is to have a collectible resource model where the player must seek out a few very specific resources to form a set. The big idea is to make the process of acquiring resources something challenging and thought-provoking. So let's stop mining gold all the time and get creative with how money is made!

No More Base-Building

My second point is that base-building should be done away with completely. Specifically, combat-oriented RTS games should not force players to play Sim-City within their game. Strategy is about moving around units, taking territory, and interacting with other factions. Why does the player need to also be a city-planner at the same time? Designers should let the player be a 'commander' as soon as the game starts.

One likely criticism of this approach is that a single game would not last very long. However, what if a game takes 15 minutes to play instead of a whole hour? What's so bad about that? In fact, a single game of Space War Commander can take anywhere from 10 to 20 minutes. Short games encourage players to replay maps that they lost because their time-investment was so small. They can jump back into the fun part right away, without having to build up a base from scratch a second time. A second advantage of bite-sized individual games is that they attract a wider audience, including people who may not be able to devote an hour or more at a time to a single game session. Finally, shorter games have that addictive "just one more game" appeal that an hour-long game simply can't match.

A second possible criticism of removing base-building is that it could leave games shallow. In other words, if there is no base-building, then what is left? My answer – what's left is the good part. Instead of focusing time and energy into developing yet another economical infrastructure based on a building/upgrade hierarchy, game designers can delve deeper into the activities of individual units and the interactions between factions. In games with military settings, there should be no shortage of new gameplay experiences the player can partake in. Here are just a few of the things we implemented for players to do with their time in SWC:

1. Save one enemy from destruction, so that it can harry an even bigger enemy.
2. Cut off an enemy's supplies, so that it has no money to buy new ships

3. Run a blockade to get to a resource
4. Set up an ambush to prevent an enemy convoy from finishing a big trade route.
5. Lure one enemy into a place where it will be attacked by another
6. Escort one's own vulnerable Freighters
7. Intercept dangerous bombers before they reach your base
8. Carry out a long but lucrative 5-stop trade run with one Freighter while keeping oneself afloat with quick, little 2-stop trade runs by another Freighter.

It is important to note that all of these are emergent activities that can freely occur on any given map. The player is never forced to engage in them or even informed that one is desirable on some particular map. These are simply possibilities that exist within the game world. By presenting this list, I hope to convey the idea that removing base-building does not mean dumbing-down the game. There are a lot of interesting things to do in a strategy game, and in SWC we've only explored the tip of that iceberg. The complex environments of real-time strategy games offer countless opportunities for new activities, and we just need to free ourselves from the drudgery of base-building to see them.

Though my list of activities is heavily based on military themes, there are plenty of new non-combat ideas out there as well. For example, a strategy game can make exploration and navigation a lot more interesting than just pushing units into a fog of war to dispel it. How about the need to collect map fragments and piece them together to find ways to get to places? Another idea is to explore personalities of units and have possible conflicts within one's set of units that must be resolved. Imagine having to deal with a mutiny because certain units with rebellious personalities came across each other? As you can see, there are plenty of new military and non-military themes that real-time strategy games can explore as replacements for the city-management component.

Conclusion

Some may argue that the key to making better RTS games is improving the graphics, multiplayer, AI, or even the story-telling. While each of those factors is significant, I believe that the greatest improvements can come from innovations in game design. Developers working on the next RTS should really think hard before they create another base-building simulation with repetitive resource gathering. Why put a cool-looking warrior on the game's cover if the player is going to be overseeing peons for 90% of the game? Ladies and gentlemen, we can do a lot better. Let's focus on making the resource gathering processes new and diverse. Furthermore, let's not force the player to build bases over and over. Instead, let's free up the gamer to do new and exciting things in our games. In short, let's make the RTS more fun!

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