The Lucasfilm Universe

a proposal for a new form of interactive entertainment
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> Picture, if you will, a network, an intricate web of knots and threads spanning thousands of miles. The knots are machines, made of silicon, metal, and plastic. The threads are metal wires. It is a computer network. The machines are computers, sitting in homes, schools and offices across the continent. The wires are telephone lines, tying the hundreds upon hundreds of individual processors into a single, unified whole. At each of these machines sit people. People of all kinds and all ages, adults and children, students and teachers, the rich, the poor, wise men and fools. They experience the sights and sounds of that which exists only in the wholeness of the web, and in their own minds. Their machines have carried them to another place: The Lucasfilm Universe.

Introduction

The Lucasfilm Universe will be a multi-user interactive simulation of an imaginary alternate reality. Distributed processing techniques will enable a large number of people to become vicarious inhabitants of this other place. Their home computers, tapping into the network using low-cost modems and the household telephone, will be their windows into it.

The theme of the Lucasfilm Universe will be science-fictional. The setting is that of an expanding frontier society in the age of interstellar travel. It is an era when the universe beyond human space seems wide-open and limitless. Even so, the realm that has been settled is vast: a region of space scores of light years across. Within this immense volume are thousands of star systems, most of them yet unexplored. There are hundreds of inhabited worlds: populous industrial planets, sleepy backwater colonies, remote mining stations, enormous artificial habitats, and everything in between. There are dozens of alien races. Some are friendly to human kind. Some are hostile. Some are just, well, *alien.*

Starships powered by Hyperdryve ply the void between worlds carrying merchants with the goods that make the galactic economy run, messengers bearing the news of the day that would otherwise be limited to the speed of light, ambassadors on obscure missions of statecraft, spies involved in innumerable interstellar intrigues both petty and severe, explorers seeking to find new worlds and new resources, colonists seeking to exploit these new worlds and make them their homes, soldiers, both patriotic and mercenary, on their way to greater battlefields, religious zealots of every stamp bent on saving (or enslaving) the souls of a thousand worlds, pilgrims of a hundred obscure sects on the way to a hundred obscure Meccas, refugees fleeing the carnage of war or the oppression of tyrants, criminals fleeing justice, tradesmen seeking their fortune, students on their way to the great Universities or home again with fresh, hard-won knowledge, scientists exploring the uncountable mysteries of the age, actors, musicians, artists and artisans seeking inspiration or just a job, wealthy dilettantes on endless holidays, hard-working executives on well-deserved vacations, con artists looking for prey, and all the other myriad folk engaged in the complicated business of life. Each of these people is a player in the game and each player in the game is one of these people.

The way things work

The Lucasfilm Universe is, in some sense, a role-playing game. Each player takes the part of a character in the vast, on-going drama. Running on each player's home computer is a piece of software that acts

as that player's window into the Universe. This program presents to the player the sights and sounds that his or her character would be experiencing in the situations that the character encounters, together with interactive controls to direct the character's actions and movements within the simulation. The home computer connects the character to the goings on in the rest of the Universe by means of data communications over the telephone. This connection is routed through the Commodore network host to the other players' home computers and to a central coordinating process, Universe Central, that resides within the network host itself.

Directly simulating the experiences of thousands of players in this large and complex Universe would swamp the capacity of any practically conceivable centralized system. For this reason, Universe Central performs very little actual simulation of the goings on in the Universe. Instead, it acts as a transaction coordinator and database server for the community of home machines running the Lucasfilm Universe software package. The bulk of the actual simulation is performed in the home computers themselves.

For example, Universe Central does not store detailed maps of all the worlds. Instead, it stores "seed" data for procedural models that run inside the home computers. Not only does this enable the central host to forego the maintenance of a *detailed* geographic database, but also cuts down on the communications bandwidth necessary to transmit the description of a world to an outlying player. Much of the business of Universe simulation is handled by simply routing the appropriate messages from one player's home computer to another.

Of course, an important function which Universe Central plays is to perform consistency checks and transaction verification procedures on the messages it handles. This is to insure that unscrupulous hackers don't gain undue power or influence in the fantasy by tampering with the "real" world (e.g., by altering the software in their own machines or by sending bogus communications to the central host).

Goals

In addition to the characteristics described above, we also set the following goals for the Lucasfilm Universe:

— *The Universe should be open-ended.* It should not have any *apparent* physical boundaries, inherent resource limitations, or time limits. There should be no defined winners or losers or explicit goals for the players. Goals and motivation will be provided by the players themselves.

— *The scope of the game should be large.* The depth and body of the Universe will arise out of the participation of a large number of players.

— *It should permit people with varying time commitments to participate and enjoy it.* Obviously, someone who is interested in killing a few minutes every so often is looking for something different than the person who is willing to commit several hours a week. The game could be set up to let someone who wanted to spend 20 minutes to, say, fly a reconnaissance mission or defend a planet from an invasion fleet, but also let someone who is willing to spend 10 hours start building an interstellar trading empire.

— *It should allow for different levels of interest and ability.* It should be accessible at a variety of levels depending upon player inclination and sophistication: as a zoom-thru-space shoot'em-up, as a game of exploration, as an economic simulation, as a diplomacy game; as a serious effort or as a light-hearted romp; as an occasional weekend diversion or as a full-time obsession.

— *It should possess the same level of quality, texture, imagination and attention to detail that the public has come to associate with the Lucasfilm movies and (we hope) with the previous products of the Lucasfilm Games Division.*

Conclusion

Through the careful and clever use of distributed processing techniques, we believe we can construct a Lucasfilm Universe of the sort just described. Will it be fun, exciting, engrossing, stimulating, technically impressive, and profitable? We think so.