SGT

A hard science fiction grand strategy game.

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# Production tools and assets

/INT/SGT will be created using several programs. These are, at the time of writing, Blender, Audacity, and Unity3D with its associated tools and programs.

Sources for assets(Models, textures, miscellaneous images and audio files) will be primarily “freeware” or whatever people donate to the project, with whatever else is needed being created by the development team.

Potential sources of assets(if I can find any money):

-Obscure musicians who currently release their music for free

-The Unity asset store, obviously

# Off-SpaceBody gameplay

<A lot of this references/specifies specific objects that may or may not be relevant. Ignore any types specified for now.>

The Player's Viewpoint.

The Camera will switch between several different planes, and will pan and zoom along each of them. It will rotate around a focus point that will be movable by the player, most likely being able to be set on a gameobject. When a camera is focused on a planet and zoomed in past a certain point, it will switch to the planetary view which is covered in the On-SpaceBody section. The Camera will most likely be a child of the PlayerFocus GameOject, or will use a script that changes it's transform component similarly.

SpaceObjects.

The main objects of interest to players in Off-SpaceBody gameplay will be Ships and SpaceBodies themselves, and their respective positions. Ships are about what they sound like: Objects which are built in-game by the players using resources and capable of several complex tasks involving almost every component of the game. Ships will transport resources, troops, and diplomats. They will fight other ships and establish interdiction around SpaceBodies, which with the advent of planetary siege equipment will be vital to a Nation's ability to wage war successfully.

A Ship is something relatively abstract: It can be an actual ship, a floating burned-out hulk, or even a space elevator. Some ships will have the ability to mimic properties of 'buildings'(I haven't decided on the actual name for these things yet. They only exist on or inside certain SpaceBodies), such as a Foundry ship that processes ore in orbit, or a Shipyard ship that can maintain or create other ships.

Types of ships:

Warships

Warships are what they sound like, ships that are used for military actions. These can be further divided between Ship to Planet (STP) or Ship to Ship (STS) ships. An example of an STP warship would be a troop carrier, orbital marine assault ship, orbital bombardment ship, or something similar. An example of an STS ship would be a 'fighter' or 'bomber' type ship.

Economic Ships

Mining ships, huge shipping vessels, orbital factories, orbital power plants, etc.

Infrastructural Ships

Colony vessels, communication things, orbital markers, (more on those later) the space elevator(s), orbital fuel dumps/repair stations/etc.

Scientific ships

Scouting ships, probes, long term sensors, scientific satellites. Most nations will start with only very small scientific ships, if any.

# On-SpaceBody gameplay

Groups

Population is modeled by the game as “Groups.” A Group is an abstracted group of ~~1-64000 (using the negative range of values for shorts, when the size of a group is needed it will be converted: someGroupPop = intGroupPop + 32768)~~ people that have the same general location, beliefs, religion, political affiliation, and culture. A Group can change all of its characteristics, has variables controlling the rate and/or possibility of change, and a Groups interaction with other groups. Groups also adapt to whatever conditions they live in, and will have tolerances for gravity, temperature, humidity (or the lack thereof) and radiation.

Group class variables:

Religion religion – The religion of the group. Can be Catholic, Orthodox, Coptic/Oriental Orthodox, Sunni, Shia, Buddhist, Nihilist, Atheist(Atheists, Deists, and Agnostics are lumped together for simplicity's sake), Calvinist, Evangelical(Catchall for Baptist, Church of Christ, non-denominational, etc.), Shinto, Animist, Pantheist, Satanist, and Cultist. Cults are generally distortions of an ideology and/or a religion, and will be explained later.

bool isSyncretic – Determines whether the Group has a syncretic religion, such as Santeria(Totemism + Catholicism). If true, the Group instance has a second religion object/variable, and will combine aspects of the two in certain situations. Some syncretic religions will have names, others will be natural occurrences when two religions overlap in a province, education is low, and religious leadership does not exist in the province but at some point the province owners religion was unsuccessfully established in the province.

byte religiosity – -124 corresponds to nonpracticing, 124 corresponds to zealous. Affects how strongly Groups adhere to their religion, and how easily they can convert to another.

String/Culture culture – The culture of the Group. ~~See the Cultures document for a list of cultures.~~

Occupation:

int (This may change) location – The full index of the province where the Group resides.

short Population – The population of a group. All groups are capped at 10000, at which time a new group will be formed and if the province occupation cap

Education: Where, how much, and what quality of education the pop received.

~~Boolean sex: The sex of the population. A successful society can be created with 1 female Group under age 50 with one member and one male Group under age 65. It will be hard, though. True = female and false = male.~~ Sex should be a proportion.

~~Byte age: The average (again, unsure as to the kind of average) age of the group. If < 12 it is a child group, with specific implications, if < 20 it is a teenage group, with specific implications. There will be several functions that take age as an input directly, regardless of the child/teen/adult distinction.~~

Interface

The Group class will be mostly self-sufficient, taking minimal input from its environment and using internal processes to determine how the Group reacts to them. Some methods that will for sure be in the Class:

void kill(int amount) //Kill the an amount in the group specified by the parameter. If amount > MAXSIZE group size = 0

void migrate(province destination) //Tells the group to begin moving towards a province. It will call the findPath method and follow the order given to it by said method.

byte[] findPath(province p) //Find the shortest (considering the constraints of the group) path to the given province. Returns an array of bytes, each of which is the parameter that must be passed to the move() method as each leg of the journey is completed. For example: A Group has run out of food in it's current province, and has decided to go to the capital which is ten provinces away. The Group instance invokes findPath(capitol)

long move(byte direction) //Moves the Group to the province above, to the upper right of, to the right of, to the lower right of, below, to the lower left of, to the left of, or to the upper left of the current province of the Group. 0 = above, 1 = upper right, 2 = right, 3 = lower right, 4 = below, 5 = lower left, 6 = left, 7 = upper left.

Provinces

Provinces are the division of land that make up planets and all 'playable' orbital bodies in the solar system. They are not necessarily a fixed size, and the smallest, hard coded provinces are often lumped together into a larger state, region, continent, or other such thing depending on population, location, planetary body, and other factors. For example: Dresden is one province in the game, and New York City will most likely be several, but colonized mars will only have a handful of provinces(although there will be a multitude of others coded in, they just won't show up until the population or maybe exploration levels grow enough), most the size of small continents on Earth. Once colonized, explored, and invested in cities will start to form and provinces will be split into smaller provinces, and once a body is completely colonized and build up (this will take hundreds if not thousands of years) it will have similar province density to Earth.

The basic, smallest division of land in the game. Each province has an array of groups that currently reside within it, and can merge with other provinces if certain civilization, population, and environmental flags trigger.

# Economics and Production

The economic simulation aspect of the game is concerned with one thing: The exchange of goods and services. These are collectively treated as “commodities” and subdivided into raw and manufactured, as well as individual commodity types.

Each Group has a set of economic needs with associated priorities and, dependent on location, a set of produced commodities and associated quantities.

# Politics

Politics in /INT/SGT will, hopefully, be varied, dynamic, and have some sort of procedural generation involved. Some dichotomies for politics:

Centralist/Distributist

A Distributist supports decentralized authority, production, military, and economics. A Centralist would like to centralize all of those.

Populist/Ideologue

Free-Market/Planned-Economy

Social-Conservative/Social-Liberal

An extreme social conservative opposes interethnic relationships, feminism, affirmative action, changes in the dominant/his culture, etc. An extreme social liberal opposes any distinctions whatsoever based on sex, ethnicity, sexual preferences, or any other non-debilitating physical or psychological characteristic.

Luddite/Scientific

A Luddite will oppose certain scientific advancements, a Scientific Group will support any and all advancements regardless of the consequences. More on this.

Jingoist/Pacifist

An extreme Jingoist supports war with any other Nation for any reason assuming the war tiredness(come up with a better name) is low enough. They will become angry if a Cause for War is unused after a certain period of time. An extreme Pacifist opposes all war always, possibly even when attacked.

Politics will be represented by parties, issues, and social movements.

# VI: Future time line

Unlike most 4X and similar games, /INT/SGM will have a set of events that will trigger at certain points, and includes many features that add little actual game play, but will add “flavor” and create something of a user-generated history for the future solar system. For example, when a region is colonized, the user will be prompted to rename that region instead of the pregenerated name (“Olympus Mons” or something similar), and will be presented with several pregenerated alternate names.

The alternate pregenerated names will be something like a name derived from the leader who led the expedition, a name derived from the current ruler of the nation, and several names specific on the ideology of the party. For example, an Italian National Socialist government might be able to name a province after some famous author of Italian literature, or a founding member of the state itself. A Lasseiz-faire/Anarcho-capitalist government will never commemorate private individuals that way (The AI of a Corporation may be able to do so) but will change the automatic pregenerated name to something like “Mining sector NNN.”

In addition to naming, there will be an extensive library of trigger-able events that can steer the game in several different directions. Certain breakthroughs in technology will only be attainable through events, and mega engineering projects (Space elevators, a Dyson ring possibly, terraforming a planet) will primarily only be accessible through corresponding series of events.