Game Play begins like this…  
The player is allocated 10,000 dollars, barrels of Oil and bushels of Food. With these resources, they are allowed to build each and every building from the very beginning i.e. the user can go to the scrolling building line at the bottom and select any type of building that they want that we have imputed into the game. The resources are then gained by the buildings, where money, food and oil are increasing with time, while population and energy are one time additives (see table below for exact values). However, life is not free so each building placed requires some amount of resource in order to build it (see table below to find values) and some require constant resources (i.e. the community and the coal plant + more (find values in table below)). The resources are as follows Money in dollars, Oil in Barrels, Food in Bushels, Electricity in Kilowatt Hours (KWH) and Population in Numbers (i.e. 50 people). Since Electricity and Population do not grow as a function of time, I suggest that they go as labels in the top right hand of the screen; however, they will change as more of those buildings come into play. Certain aspects of these resources will be called upon in the winibilty equations below i.e. population and electricity and for all intents and purposes a month will be considered 2 and a half minutes.

THE TABLE

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Dollars | Oil | Food | Outputs | Energy Use | Oil use | Food Use |  |
| School | 200 | 100 | 250 | 10$/min | 50 KWH | 0 | 25 bushels/min |  |
| Recycling center | 300 | 50 | 0 | 30% waste reduction | 40 KWH | 0 | 0 |  |
| Skyscraper | 1000 | 500 | 100 | 100$/min | 100 KWH | 0 | 0 |  |
| Factory | 250 | 500 | 50 | 50$/min | 50 KWH | 0 | 0 |  |
| Lab | 250 | 0 | 50 | 10$/min | 70 KWH | 0 | 0 |  |
| Solar Farm | 150 | 400 | 0 | 1.25 KWH | 0 | 0 | 0 |  |
| Coal Plant | 150 | 300 | 0 | 200 KWH | 0 | 100 barrels/min | 0 |  |
| Oil Rigs | 150 | 0 | 0 | 150 barrels/min | 0 | 0 | 0 |  |
| Dam | 750 | 100 | 0 | 40 KWH | 0 | 0 | 0 |  |
| Community | 100 | 200 | 500 | 50 population | 80 KWH | 0 | 100 bushels/min |  |
| Barn | 100 | 0 | 0 | 350 bushels/2 min | 0 | 0 | 0 |  |
| Nuclear Plant | 600 | 3000 | 0 | 400 KWH | 0 | 0 | 0 |  |

Winibility

The percentage is awarded in fifths  
  
the next fifth =   
100/6\*(1-(total amount of pollution)/(total volume of the world))  
  
and the next (1 if ratio of clean to dirty <1, 2 is if before is > 1= 1) 100/5\*(dirty energy/clean energy e^(t/30))^(-1)  
2) ynew =yold + (Clean energy)/(dirty energy)\*t  
  
the next =  
100/6\*(((New pop.)/(Old pop))/1.5)  
  
the next =  
100/6\*(((New income)/(Old income))/1.5)  
  
the last =  
100/6\*(1-((new waste)/(old waste)-(#of plants\*(Amount able to recycle per month)))  
  
where the final score is the sum of all of these values