

```
1: #ifndef NBODY_H
2: #define NBODY_H
3:
4:
5: #include <SFML/Graphics.hpp>
6: #include <SFML/Window.hpp>
7: #include <iostream>
8: #include <string>
9: #include <vector>
10: #include <sstream>
11:
12:
13: class Body : public sf::Drawable
14: {
15:     private:
16:         double _time;
17:         sf::Vector2f _position;
18:         sf::Vector2f _velocity;
19:         float _mass;
20:         std::string _filename;
21:
22:     public:
23:         Body(float xCoord, float yCoord, float xVelocity, float yVelocity, float m
ass, std::string fileName);
24:
25:         Body();
26:         //friend istream &operator>>( istream &input, const Body &B);
27:         virtual void draw(sf::RenderTarget &target, sf::RenderStates states) const
;
28:
29:         //input stream overloader
30:         friend std::istream& operator>>(std::istream& in, Body& Body);
31:
32:         void setTime(double sTime);
33:         double getTime();
34:
35:         void setPosition(sf::Vector2f sPosition);
36:         sf::Vector2f getPosition();
37:
38:         void setVel(sf::Vector2f sVel);
39:         sf::Vector2f getVel();
40:
41:         void setMass(float sMass);
42:         float getMass();
43:
44:         void setFilename(std::string sFile);
45:         std::string getFilename();
46:
47:         ~Body();
48: };
49:
50: #endif
```