## **ParticleSystem**

- + std::vector< Particle > m\_particles
- + void update(sf::Time t\_deltaTime)
- + void render(sf::RenderWindow &m\_window)
- + void addParticle(const Particle &m particle)

#m\_smokeEffect

## Building

- # sf::Texture m\_smokeTexture
- # sf::Vector2f m position
- # std::string m\_name
- # sf::Texture m\_buildingTexture
- # sf::Sprite m\_buildingSprite
- # sf::CircleShape m placementRadius
- # sf::RectangleShape m\_healthBar
- # sf::RectangleShape m\_healthBarBackground
- # int m health
- # int m\_maxHealth
- # int m cost
- # BuildingType m\_type
- # bool m\_placementRadiusVisible
- + Building(BuildingType m\_type)
- + virtual ~Building()
- + virtual void update(sf::Time t\_deltaTime)
- + virtual void render(sf::RenderWindow &m\_window)
- + void takeDamage(float m\_damageAmount)
- + void setPosition(const sf::Vector2f &m\_position)
- + sf::Vector2f getPosition()
- + int getCost() const
- + float getHealth() const
- + BuildingType getType() const
- + bool checkAffordability()
- + void setPlacementRadiusSize(float m\_radius)
- + void setHealth(float newHealth)
- + const sf::Sprite & getBuildingSprite() const
- + const sf::Texture & getBuildingTexture() const
- + const sf::CircleShape & getPlacementRadius() const
- + void updateHealthBar()
- # void initSmokeEffect()
- # void spawnSmokeEffect()



## Refinery

- + Refinery()
- + ~Refinery()
- + void update(sf::Time t\_deltaTime) override
- + void render(sf::RenderWindow &m\_window) override