UML ENTITIES

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App

J1Entities

enum EntityType{
PLAYER,
ENEMY,
FLYENEMY,
NONE,
};
----
p2DynArray<j1Entity>* entities;
Entity_Player* player;
Entity_Enemy* enemy;
Entity_FlyEnemy* flyenemy;
----
bool Awake(pugi::xml_node& node);
bool Update(float dt);
bool CleanUp();
void OnCollision(Collider* c1,Collider* c2);
bool CreateEntities(EntityType type, int x, int y);

j1Entity

Animation* animation;
Collider* collider;
fPoint position;
int entitytype=0;
SDL_Texture* texture;
----
const Collider* GetCollider()const;
virtual void Update(float dt);
bool Draw();
virtual void OnCollision(Collider* collider);
virtual void SetAnimation(pugi::xml_node&
node, Animation* animation);
virtual bool Load(pugi::xml_node&){return true;}
virtual bool Save(pugi::xml_node&){return true;}

1

0..*

0..*

0..*

1

Entity_FlyEnemy

float fly_speed;
fPoint velocity;
fPoint acceleration;
Animation fly;
Animation idle;
----
void Update(float dt);
bool CleanUp();
void CalculatePosition(float dt);
void SetEnemyAnimation();
bool PlayerIsOnRange();
void CreatePath();
void SetDirection();
void OnCollision(Collider* c2);
bool Load(pugi::xml_node&);
bool Save(pugi::xml_node&) const;

Entity_Enemy

fPoint velocity;
float run_speed;
iPoint centered;
int steps_to;
bool to_move = false;
iPoint go_to;
Animation idle;
Animation run;
----
void Update(float dt);
bool CleanUp();
void CalculatePosition(float dt);
void SetEnemyAnimation();
bool PlayerIsOnRange();
void CreatePath();
void SetDirection();
void OnCollision(Collider* c2);
bool Load(pugi::xml_node&);
bool Save(pugi::xml_node&) const;

Entity_Player

float run_speed;
float fly_speed;
float jump_speed;
float god_speed;
float gravity;
float max_velocity;
fPoint velocity;
fPoint acceleration;
bool isGrounded;
bool hasJumped;
bool hasDoubleJumped;
Animation idle;
Animation run;
----
void Update(float dt);
bool CleanUp();
void CalculateTime();
void CalculatePosition(float dt);
void OnCollision(Collider* c2);
void SetPlayerState();
void SetPlayerActions();
bool Load(pugi::xml_node& node);
bool Save(pugi::xml_node& node)const;