

ECS Documentation

Team ID: 6

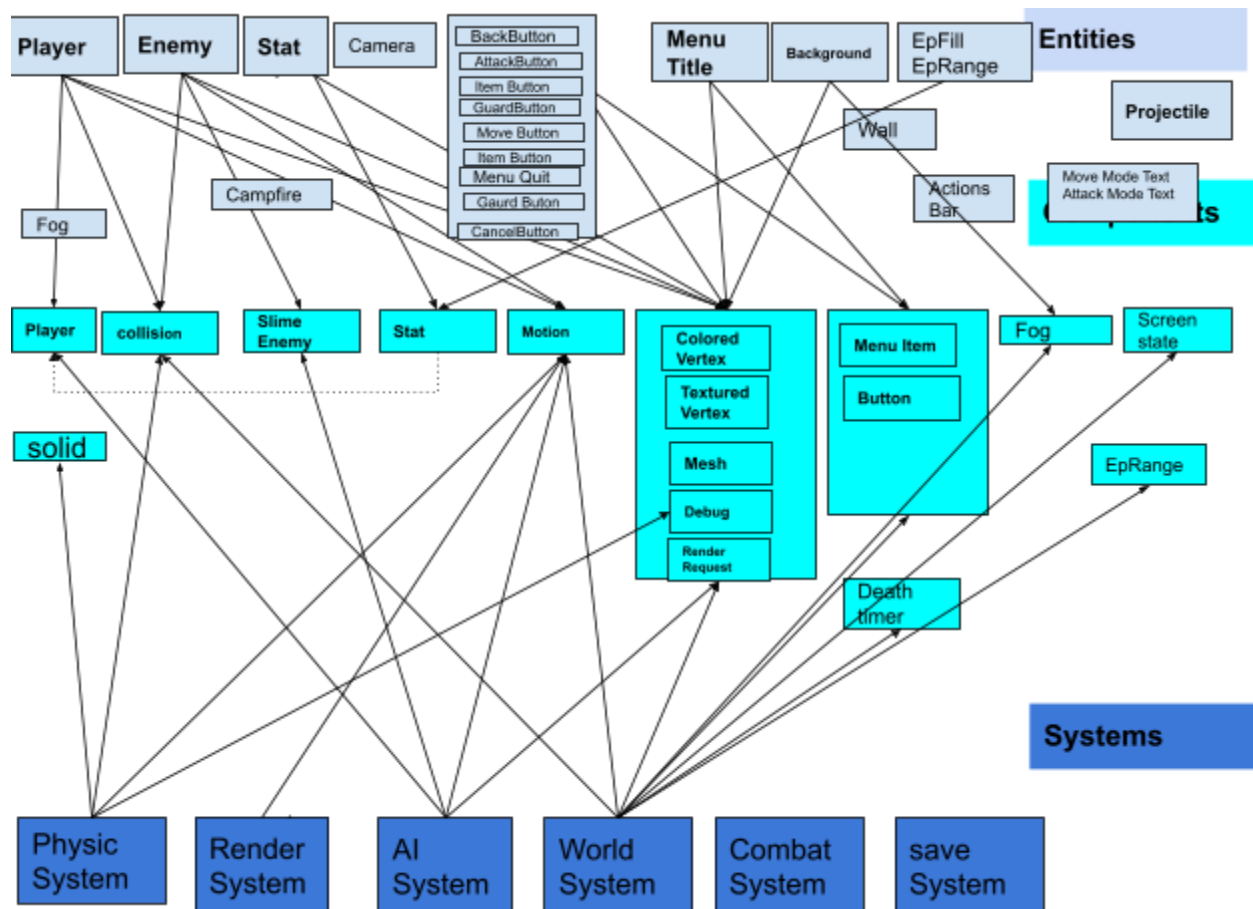


Diagram 1. ECS diagram for Adrift In Somnium Game (Milestone 1)

[illegible][illegible][illegible]

- Player Entity
- Enemy Entity

- Projectile
- Boss
- Artifact
- Consumable
- Equipment
- Chest
- Door
- Sign
- Stair
- Wall
- ActionsBar
- AttackButton
- MoveButton
- GuardButton
- ItemButton
- BackButton
- CancelButton
- AttackModeText
- MoveModeText
- PauseButton
- CollectionButton
- Fog
- EpRange (movement)
- Camera
- Text
- Campfire
- Explosion
- Stat
- EpFill (fills the bar)
- Menu Start Button
- Menu Quit Button
- Menu Title
- Background
- Tile
- ActionsBar
- Artifact
- ArtifactIcon
- AttackCard
- AttackDialog
- BossCaveling

- CollectionMenu
- Cutscene
- DamageText
- DescriptionDialog
- DialogText
- EpBar
- Game Background
- HpBar
- HpFill
- Icon
- KeyIcon
- MpBar
- MpFill
- PlantShooter
- Pointer
- Switch
- Tiles
- TurnUI
- GameBackground
- Trap
- KingSlime
- LivingPebble
- LivingRock
- Apparition
- Consumable
- Door
- Sign2
- Textbox
- MenuCredits
- AttackIndicator
- AttackRange
- MotionText
- EquipmentDialog
- AttackDialogButton
- MouseAnimation
- MouseAnimationUI
- ItemCard
- ItemMenu
- StatsText
- ItemEquipmentTexture

- ObjectiveCounter
- AttackAnimation
- BigSlash
- MenuContinue
- SaveQuit
- EnemyHpBacking
- EnemyHpFill
- BossHPBacking
- BossHPFill
- BossIconBacking
- BossIcon
- Shadow
- Particle

Components (defined as structs in components.hpp)

NOTE: [n] represents not yet implemented

- Player
- Stat
- Collision
- Motion (for physics)
- Debug (from template)
- ColoredVertex (from template)
- TexturedVertex (from template)
- Mesh (from template)
- RenderRequest(from template)
- Queueable (for turn order)
- Fog
- Slime Enemy
- EpRange
- Player_Action
- Consumable
- Artifact
- ModeVisualization
- Collidable
- ScreenState
- DeathTimer
- SquishTimer
- WobbleTimer
- Damageable
- Equipable
- Guardable

- Interactable
- Solid
- Enemy
- ActionButton
- MenuItem
- Camera
- Text
- TextTimer
- Door [n]
- TileUV
- AnimationData
- GuardButton
- Projectile
- ProjectileTimer
- Sign
- Inventory
- Button
- ArtifactIcon
- AttackCard
- AttackDialog
- Chest
- DamageTextTimer
- DescriptionDialog
- FadeInTimer
- Floors
- KnockBack
- LoadingTimer
- Mesh
- Motion
- Objective
- RoomTransitionTimer
- SessionStatistics [n]
- StatusContainer
- StatusEffect
- Switch
- TileUV
- Collision
- Trap
- Boss
- AttackRange

- Door
- Sign2
- Textbox
- FadeTransitionTimer
- StatsText
- HPDispalay
- EnemyHPBar
- BossHPBar
- ShadowContainer
- Shadow
- GuardButton
- KeyIcon
- Pointer
- ItemCard
- ExpandTimer
- ParticleEmitter
- Particle
- ParticleContainer
- SpriteSheet

Systems (defined as separate cpp/hpp files)

- world_system (main game loop)
- physics_system (movement_system)
- render_system
- turn_system (for turn order in battle)
- ai_system
- combat_system
- Save_system
- cutscene

List of Entities and their components used

Player Entity

Components used: Player, ColoredVertex, TexturedVertex, Debug, Motion, Stat, Collision, Mesh, RenderRequest, RoomTransitionTimer, Objective, LoadingTimer, Collision

Enemy Entity

Components used: Slime Enemy, ColoredVertex, TexturedVertex, Debug, Motion, Collision, Mesh, RenderRequest

Projectile

Components used: Mesh, Stat, Motion, RenderRequest, Hidable, Projectile, ProjectileTimer

Boss

Components used: Enemy, Mesh, Motion, RenderRequest, Hidable, Queueable

Artifact

Components used: Mesh, Motion, RenderRequest, Artifact, Hidable

Consumable [n]

Components used: Mesh, Motion, RenderRequest, Hidable, Consumable

Equipable

Components used: Mesh, Motion, RenderRequest, Hidable, Equipable

Chest

Components used: Mesh, Motion, RenderRequest, Hidable, Interactable

Door [n]

Components used: Mesh, Motion, RenderRequest

Sign

Components used: Mesh, Motion, RenderRequest, AnimationData, Sign

Stair [n]

Components used: Mesh, Motion, RenderRequest,

Wall

Components used: Motion, Solid, Collidable

ActionsBar

Components used: Mesh, Motion, RenderRequest

AttackButton

Components used: Mesh, Motion, RenderRequest, Button, ActionButton

MoveButton

Components used: Mesh, Motion, RenderRequest, Button, ActionButton

GuardButton

Components used: Mesh, Motion, RenderRequest, GuardButton, ActionButton

ItemButton

Components used: Mesh, Motion, RenderRequest, Button, ActionButton

BackButton

Components used: Mesh, Motion, RenderRequest, Button, ModeVisualization

CancelButton

Components used: Mesh, Motion, RenderRequest, Button, MenuItem

AttackModeText

Components used: Mesh, Motion, RenderRequest, ModeVisualization

MoveModeText

Components used: Mesh, Motion, RenderRequest, ModeVisualization

PauseButton

Components used: Mesh, Motion, RenderRequest, Button

CollectionButton

Components used: Mesh, Motion, RenderRequest, Button

Fog

Components used: Mesh, Motion, RenderRequest, Fog

EpRange

Components used: Mesh, Motion, RenderRequest, EpRange

Camera

Components used: Camera

Text

Components used: Mesh, RenderRequest, Text, TextTimer

Campfire

Components used: Mesh, Motion, RenderRequest, AnimationData, Hidable

Explosion

Components used: Mesh, Motion, RenderRequest, AnimationData

Stat

Components used: Stat, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest, StatusContainer, StatusEffect

EpFill

Components used: Stat, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

Menu Start Button

Components used: Menu Item, Button, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

Menu Quit Button

Components used: Menu Item, Button, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

Menu Title

Components used: Menu Item, Button, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

Background

Components used: ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

Tile

Components used: Motion, TileUV, RenderRequest

ActionsBar

Components used: ActionButton, Button, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

ArtifactIcon

Components used: ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest, ArtifactIcon

AttackCard

Components used: ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest, AttackCard

AttackDialog

Components used: AttackDialog, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

Caveling

Components used: Enemy, ColoredVertex, TexturedVertex, Debug, Mesh, RenderRequest

CollectionMenu

Components used: TexturedVertex, Mesh, RenderRequest, Debug, Inventory, Equipment, Consumable

Cutscene

Components used: TexturedVertex, Mesh, RenderRequest, Debug

DamageText

Components used: TexturedVertex, Mesh, RenderRequest, Debug, DamageTextTimer, Text

DescriptionDialog

Components used: TexturedVertex, Mesh, RenderRequest, Debug, DescriptionDialog

DialogText

Components used: TexturedVertex, Mesh, RenderRequest, Debug, Text

EpBar

Components used: TexturedVertex, Mesh, RenderRequest, Debug,

Game Background

Components used: TexturedVertex, Mesh, RenderRequest, Debug, ColoredVertex

HpBar

Components used: TexturedVertex, Mesh, RenderRequest, Debug,

HpFill

Components used: TexturedVertex, Mesh, RenderRequest, Debug,

Icon

Components used: TexturedVertex, Mesh, RenderRequest, Debug,

KeyIcon

Components used: KeyIcon, TexturedVertex, Mesh, RenderRequest, Debug,

MpBar

Components used: TexturedVertex, Mesh, RenderRequest, Debug,

MpFill

Components used: TexturedVertex, Mesh, RenderRequest, Debug,

PlantShooter

Components used: TexturedVertex, Mesh, RenderRequest, Debug, Enemy

Pointer

Components used: TexturedVertex, Mesh, RenderRequest, Debug

Switch

Components used: TexturedVertex, Mesh, RenderRequest, Debug, Switch

TurnUI

Components used: Motion , Enemy, Player

GameBackground

Components used: TexturedVertex, Mesh, RenderRequest, Debug, Motion

Trap

Components used: TexturedVertex, RenderRequest, Debug, Motion, Traps

KingSlime

Components used: TexturedVertex, RenderRequest, Debug, Motion, enemy, inventory, stat, hidables, queables, solid, bossHPBars, shadowContainers

LivingPebble

Components used: TexturedVertex, RenderRequest, Debug, Motion, enemy, inventory, stat, hidables, queables, solid, enemyHPBars, shadowContainers, enemy

LivingRock

Components used: TexturedVertex, RenderRequest, Debug, Motion, enemy, inventory, stat, hidables, queables, solid, enemyHPBars, shadowContainers, enemy

Apparition

Components used: TexturedVertex, RenderRequest, Debug, Motion, enemy, inventory, stat, hidables, queables, solid, enemyHPBars, shadowContainers, enemy

Consumable

Components used: TexturedVertex,RenderRequest, Debug, Motion, Consumables, Hidables

Door

Components used: TexturedVertex, RenderRequest, Debug, Motion, Solid, Interactable, Test

Sign2

Components used: TexturedVertex, RenderRequest, Debug, Motion, AnimationData, Sign2, Interactables

Textbox

Components used: TexturedVertex, RenderRequest, Motion, Textbox

MenuCredits

Components used: TexturedVertex, RenderRequest, Motion, menuItem, Buttons

AttackIndicator

Components used: TexturedVertex, RenderRequest, Motion,

AttackRange

Components used: TexturedVertex, RenderRequest, Motion, AttackRange

MotionText

Components used: TexturedVertex, RenderRequest, Text, Motion

EquipmentDialog

Components used: TexturedVertex, Mesh, RenderRequest, Motion, EquipmentDialog, Equip, Button,

AttackDialogButton

Components used: TexturedVertex, RenderRequest, Motion, Buttons

MouseAnimation

Components used: TexturedVertex, RenderRequest, AnimationData, Motion

MouseAnimationUI

Components used: TexturedVertex, RenderRequest, AnimationData, Motion

ItemCard

Components used: TexturedVertex, RenderRequest, Mesh, Motion, ItemCard, Button

ItemMenu

Components used: TexturedVertex, RenderRequest, Mesh, Motion, ItemCard, Button

StatsText

Components used: TexturedVertex, RenderRequest, Text, statsText

ItemEquipmentTexture

Components used: TexturedVertex, RenderRequest, Motion, SpriteSheet

ObjectiveCounter

Components used: TexturedVertex, RenderRequest, Motion

AttackAnimation

Components used: TexturedVertex, RenderRequest, Motion, AnimationData

BigSlash

Components used: TexturedVertex, RenderRequest, Motion, ExpandTimer

MenuContinue

Components used: TexturedVertex, RenderRequest, Motion, menuItems, Buttons

SaveQuit

Components used: TexturedVertex, RenderRequest, Motion, menuItems, Buttons

EnemyHpBacking

Components used: TexturedVertex, RenderRequest, Motion, Colors, HPDisplay

EnemyHpFill

Components used: TexturedVertex, RenderRequest, Motion, Colors, HPDisplay

BossHPBacking

Components used: TexturedVertex, RenderRequest, Motion, Colors, HPDisplay

BossHPFill

Components used: TexturedVertex, RenderRequest, Motion, Colors, HPDisplay

BossIconBacking

Components used: TexturedVertex, RenderRequest, Motion, Colors, HPDisplay

BossIcon

Components used: TexturedVertex, RenderRequest, Motion, Colors, HPDisplay

Shadow

Components used: TexturedVertex, RenderRequest, Motion, Shadows

Particle

Components used: TexturedVertex, RenderRequest, Motion, Particle, Colors