LAB - 9

Extending AI Behaviours in a Multiplayer Environment

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Fig 1.1: Screenshot showing addition of code in US_Character for Noise

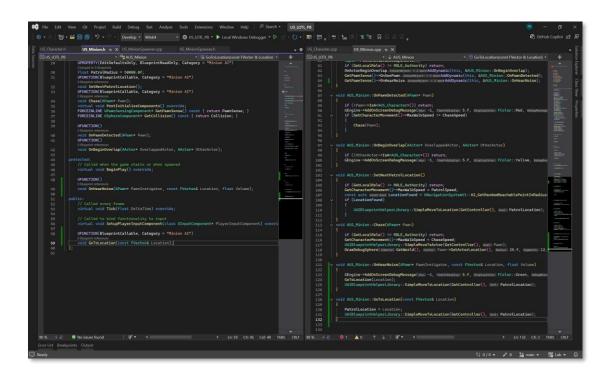


Fig 1.2: Screenshot showing addition of code in US_Minion for Noise

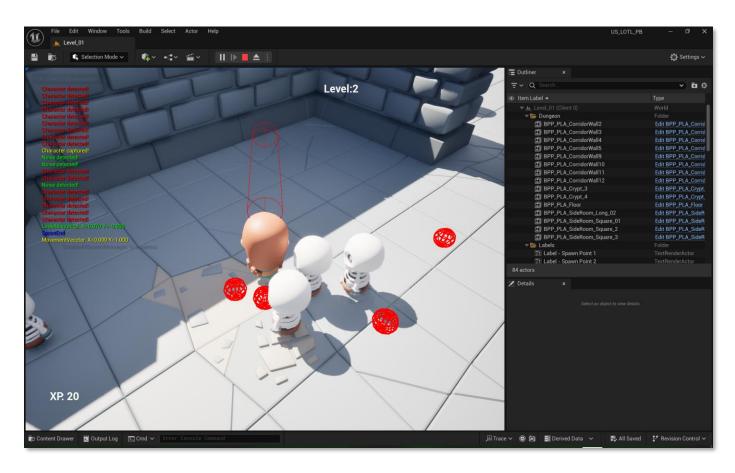


Fig 1.3: Screenshot showing Noise code in Action

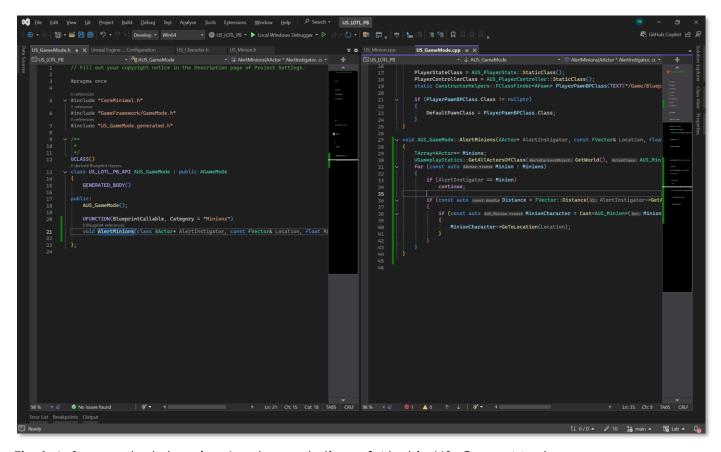


Fig 1.4: Screenshot showing Implementation of Alert in US_GameMode

```
- % AUS Minion
            #include "GameFramework/Character.h"
                                                                                                                                                         oid AUS_Minion::SetNextPatrolLocation()
                                                                                                                                                             if (GetLocalRole() != ROLE_Authority) return;
GetCharacterHovement()->MaxWalkSpeed = PatrolSpeed;
const auto const bool LocationFound = UNavigationSystemV1::K2_GetRan
            #include "US_Minion.generated.h"
                                                                                                                                                             if (LocationFound)
            O derived Blueprint classes
class US_LOTL_PB_API AUS_Minion : public ACharacter
                                                                                                                                                                  UAIBlueprintHelperLibrary::SimpleMoveToLocation(GetController
                 GENERATED_BODY()
           private:
UPROPERTY(VisibleAnywhere, BlueprintReadOnly, Category = "Minion
                  Changed in O Blueprints
TObjectPtr<class UPawnSensingComponent> PawnSense;
UPROPERTY(VisibleAnywhere, BlueprintReadOnly, Category = "Minion
                                                                                                                                                            if (GetLocalRole() != ROLE_Authority) return;
GetCharacterMovement()->MaxWalkSpeed = ChaseSpeed;
UATBlueprintHelpert.lbrary::SimpleRoveToActorCGetController(), EGGE
DrawDebugSphere(Immerde: GetWorld(), EGGEEP PAWN->GetActorLocation()
                  Changed in D Blueprints
TObjectPtr<class USphereComponent> Collision;
UPROPERTY()
                                                                                                                                                             if (const auto AUS_GameMode *const GameMode = Cast<AUS_GameMo
19
20
21
                                                                                                                                                                  GameMode->AlertMinions(AlertInstigator: this, Pawn->GetActorLocat
                  UPROPERTY(EditDefaultsOnly, BlueprintReadOnly, Category = "Minio
                  float AlertRadius = 6000.0f;
               ublic:
    // Sets default values for this character's properties
    AUS_Minion();
                                                                                                                                                       void AUS_Minion::OnHearNoise(APawn* PawnInstigator, const FVector& Lo
                                                                                                                                                             GEngine->AddOnScreenDebugMessage(Rey: -1, TimeToDisplay: 5.f, DisplayCoGToLocation(Location);
UAIBlueprintHelperLibrary::SimpleMoveToLocation(GetController(),
                  UPROPERTY(EditDefaultsOnly, BlueprintReadOnly, Category = "Minio
                  Changed in Disciplinis
Float PatrolSpeed = 150.0f;
UPROPERTY(EditDefaultsOnly, BlueprintReadOnly, Category = "Minioi
                                                                                                                                                             PatrolLocation = Location;
UAIBlueprintHelperLibrary::SimpleMoveToLocation(GetController(),
                  UPROPERTY(EditDefaultsOnly, BlueprintReadOnly, Category = "Minion
                  float PatrolRadius = 50000.0f;
UFUNCTION(BlueprintCallable, Category = "Minion AI")
                  void SetNextPatrolLocation();
UFUNCTION(BlueprintCallable, Category = "Minion AI")
```

Fig1.5: Screenshot showing Implementation of Alert in US_Minion

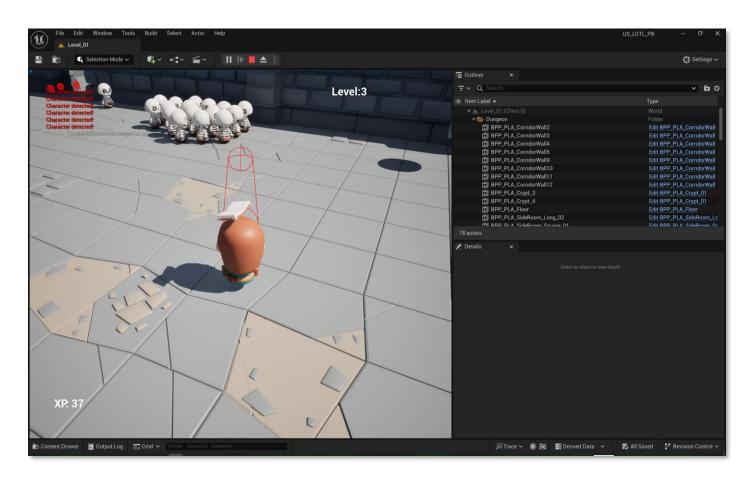


Fig 1.6: Screenshot showing alert in action

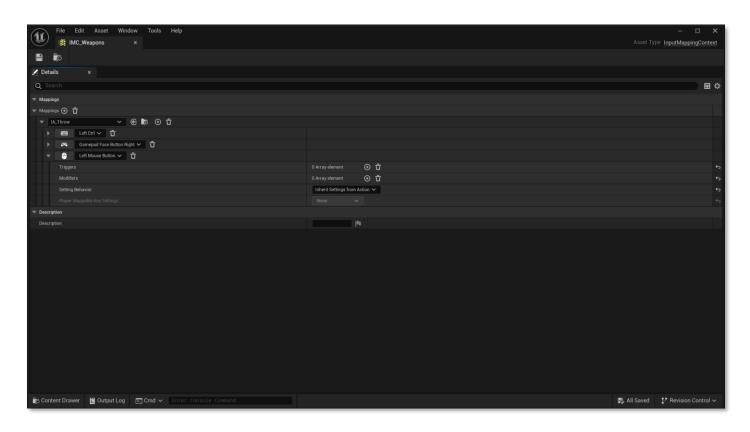


Fig 1.7: Screenshot addition of Input mapping and buttons

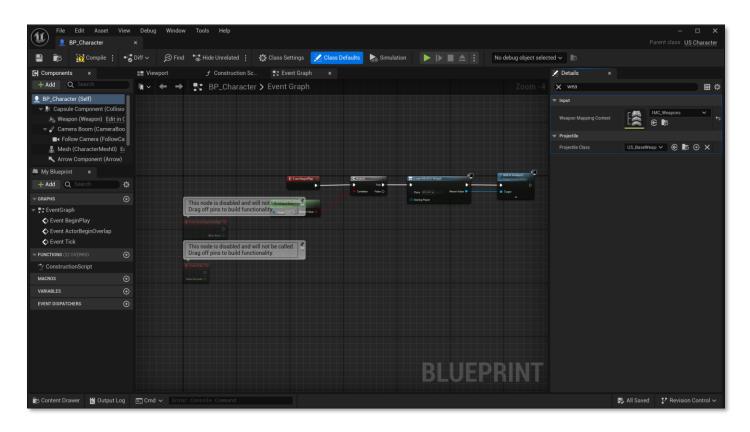


Fig 1.8: Screenshot addition of Input mapping in BP_Character

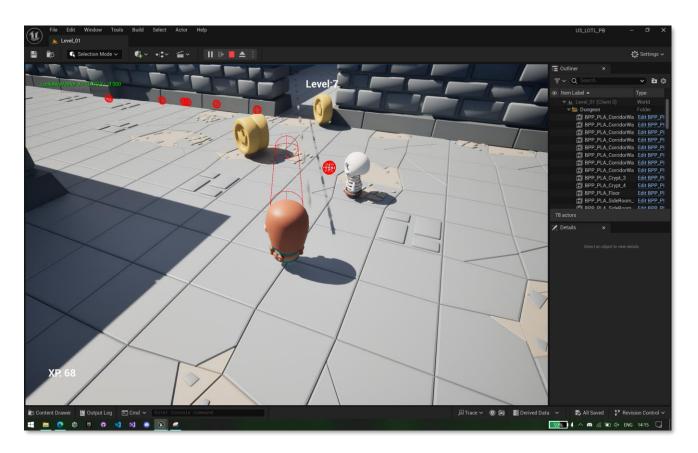


Fig 1.9: Screenshot showing shooting in action testing the weapon converted enemy into gold



Fig 1.10: Screenshot showing addition of attributes to Minion AI for Minion Sentinel

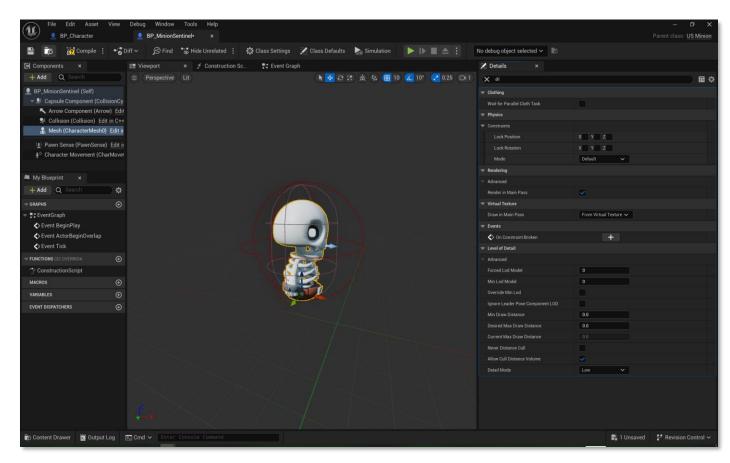


Fig 1.11: Screenshot showing addition of attributes to AI for Minion Sentinel

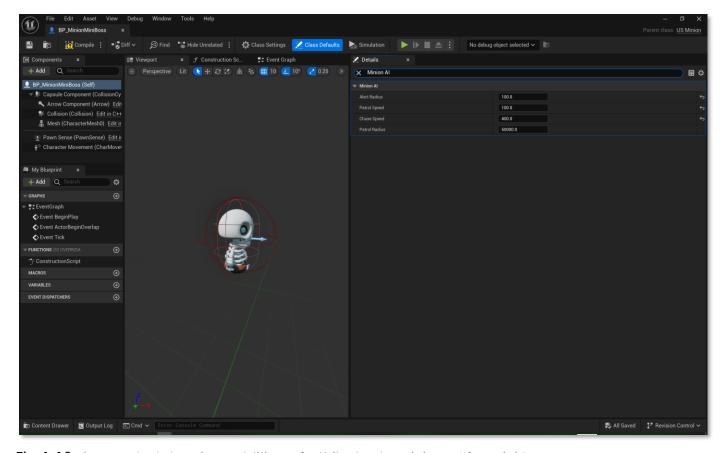


Fig 1.12: Screenshot showing addition of attributes to Minion AI for Mini Boss

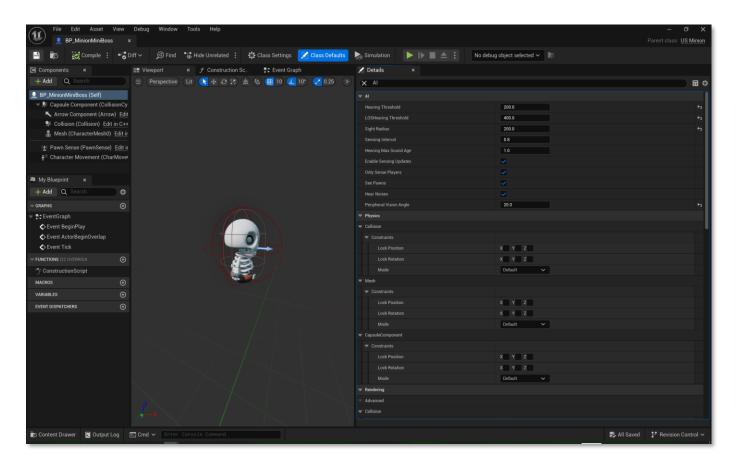


Fig 1.13: Screenshot showing addition of attributes to AI for Mini Boss

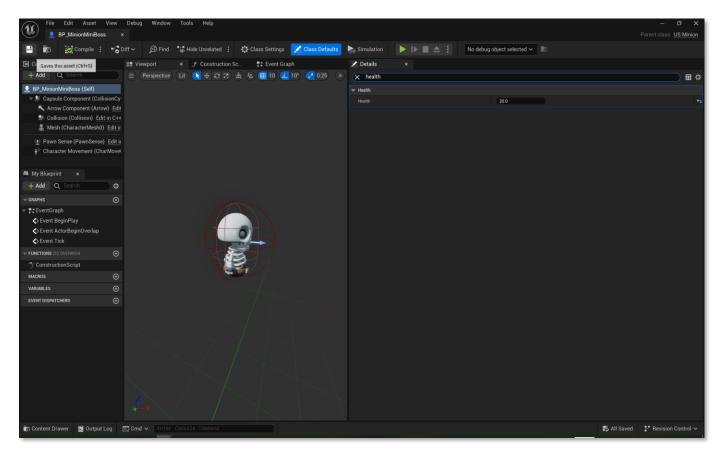


Fig 1.14: Screenshot showing addition of attributes to AI for Mini Boss

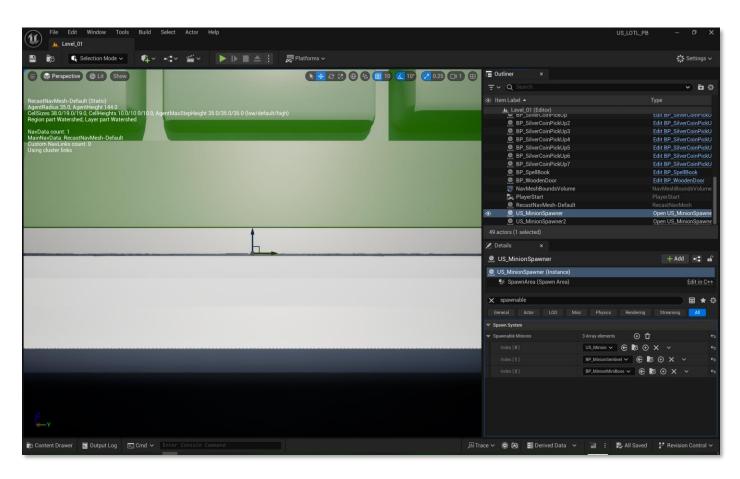


Fig 1.15: Screenshot showing addition Minion Sentinel and Minion Mini Boss

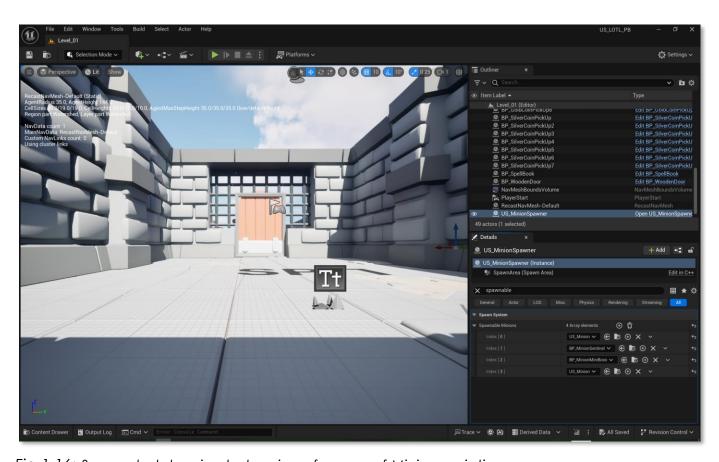


Fig 1.16: Screenshot showing balancing of spawn of Minion variations.

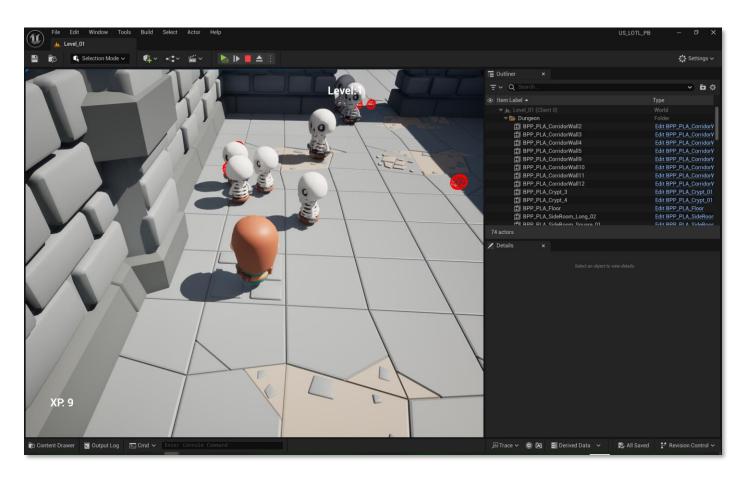


Fig 1.17: Screenshot showing Level with different enemies in action