Subject: Turret and GT not shooting Posted by robbyke on Mon, 11 Jun 2012 02:58:57 GMT

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the turret and GT models wont fire

theyll only fire when someone is nearly in it

i thought it was my scripts first but then every defence should have the problem or am i wrong? header file

```
class KB Base Defence: public ScriptImpClass {
unsigned int id1;
unsigned int id2;
unsigned int id3;
unsigned int objtype;
int CurrentTarget:
bool Firing;
void Created(GameObject *obj);
void Enemy_Seen(GameObject *obj,GameObject *enemy);
bool IsValidEnemy(GameObject* WeaponObj, GameObject* EnemyObj);
void Action_Complete(GameObject *obj,int action_id,ActionCompleteReason complete_reason);
void Timer Expired(GameObject *obj.int number);
public: void Register_Auto_Save_Variables();
};
cpp file
void KB_Base_Defence::Created(GameObject *obj)
Vector3 pos,pos1,pos2,pos3;
GameObject *object;
obitype = Commands->Get Player Type(obj):
Commands->Enable_Hibernation(obj,false);
Commands->Innate Enable(obj);
Commands->Enable_Enemy_Seen(obj,true);
pos = Commands->Get Position(obj);
CurrentTarget = NULL;
pos1.X = pos.X - 10;
pos1.Y = pos.Y - 10:
pos1.Z = pos.Z + 2;
pos2.X = pos.X + 10;
pos2.Y = pos.Y;
pos2.Z = pos.Z + 2;
pos3.X = pos.X + 10;
```

```
pos3.Y = pos.Y - 10;
pos3.Z = pos.Z + 2;
Firing = false;
object = Commands->Create_Object("Invisible_Object",pos1);
if (object)
 id1 = Commands->Get_ID(object);
object = Commands->Create_Object("Invisible_Object",pos2);
if (object)
 id2 = Commands->Get ID(object);
object = Commands->Create_Object("Invisible_Object",pos3);
if (object)
id3 = Commands->Get_ID(object);
Commands->Start_Timer(obj,this,10,1);
void KB Base Defence::Enemy Seen(GameObject *obj,GameObject *enemy)
GameObject *o = Get_Vehicle(enemy);
if (o)
 enemy = 0;
ActionParamsStruct params;
Vector3 pos,pos2;
float maxattack:
float attacktimer:
pos = Commands->Get_Position(obj);
pos2 = Commands->Get_Position(enemy);
if (IsValidEnemy(obj,enemy) && !Firing)
 maxattack = Get Float Parameter("MaxAttackDistance");
 params.Set Basic(this,100,2);
 if(Get_Int_Parameter("AdjustAim") != 0 && enemy->As_SoldierGameObj())
 params.Set_Attack(Commands->Get_Position(enemy),maxattack,0.0,true);
 else
 params.Set_Attack(enemy,maxattack,0.0,true);
 params.AttackCheckBlocked = false;
```

```
params.AttackForceFire = true;
 Commands->Action Attack(obj,params);
 CurrentTarget = Commands->Get_ID(enemy);
 attacktimer = Get Float Parameter("AttackTimer");
 Commands->Start_Timer(obj,this,attacktimer,2);
}
bool KB Base Defence::IsValidEnemy(GameObject* WeaponObj, GameObject* EnemyObj) {
if (!EnemyObj) return false;
if (Commands->Get_Player_Type(EnemyObj) == Commands->Get_Player_Type(WeaponObj))
return false:
if (Commands->Get_Health(EnemyObj) <= 0) return false;
if (!Commands->Is_Object_Visible(WeaponObj, EnemyObj)) return false;
if (Is_Script_Attached(EnemyObj, "KB_Friendly_Zone_Generated")) return false;
if (EnemyObj->As_VehicleGameObj() && Get_Vehicle_Driver(EnemyObj))
 if (Is_Script_Attached(Get_Vehicle_Driver(EnemyObj), "KB_Friendly_Zone_Generated")) return
false:
}
float minattack = Get_Float_Parameter("MinAttackDistance");
float maxattack = Get Float Parameter("MaxAttackDistance");
Vector3 WeaponObiPos = Commands->Get Position(WeaponObi):
Vector3 WeaponObjPosXY = WeaponObjPos;
WeaponObiPosXY.Z = 0:
Vector3 EnemyObjPos = Commands->Get Position(EnemyObj);
Vector3 EnemyObjPosXY = EnemyObjPos;
EnemyObjPosXY.Z = 0;
float DistanceXY = Commands->Get Distance(WeaponObjPosXY, EnemyObjPosXY);
return DistanceXY > minattack && DistanceXY < maxattack;
}
void KB_Base_Defence::Action_Complete(GameObject *obj,int action_id,ActionCompleteReason
complete reason)
if (action id == 2)
 Commands->Action_Reset(obj,100);
}
void KB_Base_Defence::Timer_Expired(GameObject *obj,int number)
ActionParamsStruct var;
```

```
GameObject *object;
float f:
if(number == 1 && !Firing)
 f = Commands -> Get_Random(0.0f, 2.9999f);
 switch (__min(int(f),2))
 case 0:
 object = Commands->Find_Object(id1);
 if (object)
  var.Set Basic(this,70,1);
  var.Set_Attack(object,0.0,0.0,true);
  Commands->Action_Attack(obj,var);
 break;
 case 1:
 object = Commands->Find_Object(id2);
 if (object)
  var.Set_Basic(this,70,1);
  var.Set Attack(object, 0.0, 0.0, true);
  Commands->Action_Attack(obj,var);
 break;
 default:
 object = Commands->Find_Object(id3);
 if (object)
  var.Set_Basic(this,70,1);
  var.Set Attack(object, 0.0, 0.0, true);
  Commands->Action_Attack(obj,var);
 }
 Commands->Start_Timer(obj,this,10,1);
if(number == 2)
 if(!IsValidEnemy(obj,Commands->Find_Object(CurrentTarget)))
 Commands->Action Reset(obj,100);
 Firing = false;
void KB_Base_Defence::Register_Auto_Save_Variables()
```

```
Auto_Save_Variable(&id1,4,1);
Auto_Save_Variable(&id2,4,2);
Auto_Save_Variable(&id3,4,3);
Auto_Save_Variable(&objtype,4,4);
}
ScriptRegistrant<KB_Base_Defence>
KB_Base_Defence_Registrant("KB_Base_Defence","MinAttackDistance=0.0:float,MaxAttackDistance=300.0:float,AttackTimer=10.0:float,AdjustAim=0:int");
```

this is my defence Al it targets both vtol and ground and is power independent

ive made it using several ai scripts from TT

edit: fixed the spoiler things

Subject: Re: Turret and GT not shooting Posted by danpaul88 on Mon, 11 Jun 2012 07:49:00 GMT View Forum Message <> Reply to Message

For reference, dp88_AI_Turret also supports targeting VTOL and ground and is optionally power independent (it also supports target priorities, such that you can instruct it to prefer shooting infantry instead of vehicles if there are any nearby, or to try and finish off badly damaged targets before healthy ones).

For reference; Toggle Spoiler

Anyway, it sounds to me like your sight range might be too small in your LE preset. The sight range variable determines how far away the defence can 'see' enemies and thus shoot at them.

```
File Attachments
```

```
1) ai turret.jpg, downloaded 622 times
```

Detailed Description

Author:

Daniel Paul (danpaul88@yahoo.co.uk)

A custom designed turret AI code designed to allow maximum flexibility in implementation without needing multiple

The turret AI uses a priority based system to 'intelligently' pick targets based upon a range of criteria such as the in the script parameters to give you a high degree of control over which of several targets a turret will choose to concentrate their fire on a single target for maximum impact.

Parameters:

Priority_Infantry Weapon_Infantry Splash_Infantry Priority_Light_Vehicle Weapon_Light_Vehicle Priority_Heavy_Vehicle Weapon_Heavy_Vehicle Priority_VTOL Weapon_VTOL Min_Attack_Range Max Attack Range Min_Attack_Range_Secondary Modifier_Distance Modifier_Target_Damage Modifier_Target_Value Requires_Power Debug

Base targetting priority for infantry targets, or 0 to ignore infantry Weapon to use against infantry targets: 0 for primary fire, 1 for secon Determines if we should try to damage infantry with splash instead of Base targetting priority for light vehicle targets, or 0 to ignore light ve Weapon to use against light vehicle targets: 0 for primary fire, 1 for s Base targetting priority for heavy vehicle targets, or 0 to ignore heav Weapon to use against heavy vehicle targets: 0 for primary fire, 1 for Base targetting priority for flying targets, or 0 to ignore flying targets Weapon to use against flying targets: 0 for primary fire, 1 for seconds Minimum distance at which the turret can engage enemies when using Maximum distance at which the turret can engage enemies when usin Minimum distance at which the turret can engage enemies when using Max Attack Range Secondary Maximum distance at which the turret can engage enemies when usin Priority modification to apply based on distance to target. Higher valu Priority modification to apply based on damage a target has already s Priority modification to apply based on the value of the target. Higher Specify whether this turret requires base power to operate: 1 to requ Specify whether to produce a debug logfile about the turrets targetti

Note:

Vehicles are always classified as light vehicles unless they have the dp88_AI_heavyVehicleMarker scri

Never leave the Debug parameter enabled when releasing your mod, it will clog up everyones machines wi

Member Function Documentation

void dp88_AI_Turret::attackLocation (GameObject * obj,

Subject: Re: Turret and GT not shooting Posted by robbyke on Mon, 11 Jun 2012 12:49:51 GMT

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yea it hought that to at first but i already doubled it

and it was set at 100 first

the strange thing is that its only those 2:s

the agt and obelisk work just fine

even the tailgun does (wich makes it even worse as gt is a tailgun)

Subject: Re: Turret and GT not shooting Posted by danpaul88 on Mon, 11 Jun 2012 13:07:42 GMT View Forum Message <> Reply to Message

Try using different combinations of the 'Aim 2d', 'Sight down muzzle' and other such options to see what works best, I don't have access to my LE here to see how I usually set mine up but playing around with those usually helps.

Subject: Re: Turret and GT not shooting Posted by robbyke on Mon, 11 Jun 2012 15:39:18 GMT View Forum Message <> Reply to Message

no difference

i tried another script

i tired to use m00 base Defence and that one worked

but ifw_base_defence didnt :s

edit:

Found it

if (!Commands->Is_Object_Visible(WeaponObj, EnemyObj)) return false;

apparantly turret and gt cant really "see"

EDIT 2:

my guns wont stop shooting anymore :s

they just keep firing against the wall until the target is totally out of range

WeaponObj->As_SmartGameObj()->Is_Obj_Visible(EnemyObj->As_PhysicalGameObj())

Subject: Re: Turret and GT not shooting

Posted by reborn on Wed, 13 Jun 2012 21:57:34 GMT

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danpaul88 wrote on Mon, 11 June 2012 03:49For reference, dp88_AI_Turret also supports targeting VTOL and ground and is optionally power independent (it also supports target priorities, such that you can instruct it to prefer shooting infantry instead of vehicles if there are any nearby, or to try and finish off badly damaged targets before healthy ones).

For reference; Toggle Spoiler

Anyway, it sounds to me like your sight range might be too small in your LE preset. The sight range variable determines how far away the defence can 'see' enemies and thus shoot at them.

Very nice documentation, DP. As a community, we tend to lack proper documentation, good job!

Subject: Re: Turret and GT not shooting Posted by danpaul88 on Thu, 14 Jun 2012 08:06:37 GMT

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I have found the best way to handle 'stop shooting at stuff you can no longer see' is to record the last time you 'saw' the enemy (via the Enemy_Seen) event and have a timer that fires regularly to check that against the current time. If you have not 'seen' the enemy you are trying to shoot at for more than 2 or 3 seconds you should probably stop shooting at them.

Alternatively if you change;

params.AttackCheckBlocked = false;

to

params.AttackCheckBlocked = true;

I believe you will get an ActionComplete and it will stop firing if it can no longer shoot at the target, but I am not 100% sure what AttackCheckBlocked does so you will have to experiment (this is the sort of thing I would like to document so let me know your results if you do try this)

reborn wrote on Wed, 13 June 2012 22:57

Very nice documentation, DP. As a community, we tend to lack proper documentation, good job!

I am actually working on documenting all of the TT stuff in that fashion but there's an awful lot of it so it's slow going. Jonwil has done a bit too.

Another example; Toggle Spoiler

File Attachments

1) ar_miner_ai_docs.jpg, downloaded 528 times

Page 9 of 12 ---- Generated from Command and Conquer: Renegade Official Forums

IIIL	огеневичание
int	oreLoadLevel
int	oreValue
bool	useAI
bool	animating
int	aiState

Detailed Description

Author:

Daniel Paul (danpaul88@yahoo.co.uk)

This class contains the basic logic for the ore miners used in Apocalypse Rising and supports both AI and player of script zone with the dp88_AR_Ore_Field_Zone script attached to it, which determines the value of each ore 'u scripts.

The miner can hold up to a configurable number of ore units, each of which takes a configurable amount of time tield whilst ore units are 'collected'.

Miners can deposit ore at any time as long as they have at least one unit mined, with the total value of the deposit. Ore deposits are achieved by entering a script zone with the dp88_AR_Ore_Deposit_Zone attached to it

When the AI is enabled the miner will use the pathfind grid to locate the nearest ore field and drive to it to begin ore deposit zone and drive there to unload it's ore. This will be repeated ad-infinitum until the miner is destroyed. objects you should place pathfind blockers around the problematic areas and re-generate pathfind data to make

Specifies that this miner should use its AI to mine autonomously. 1 to enable AI, 0 of

Consider the total number of ore units this miner can hold at any time

Parameters:

enableAI

landi avale

loadLevels	Specifies the total number of ore units this miner can hold at any time
orePerLoadLevel	Amount of ore mined in each unit, this is multiplied by the oreValue parameter in the ore unit
timePerLoadLevel	The amount of time, in seconds, it takes to mine one ore unit from an ore field
unloadtime	The amount of time, in seconds, it takes to unload all ore units at an ore deposit zo
aiStartDelay	If the miner AI is enabled this specifies the initial delay before starting the first AI a overriding this one.
dockAnimation	An optional animation to be played when depositing ore at a refinery
dockSound	An optional sound effect to be played when depositing ore at a refinery
miningAnimation	An optional animation to be played in a loop whilst mining in an ore field
miningSound	An optional sound effect to be played each time the ore load level increases

Note:

Because this script is designed to act as a base class for both types of AR miner it is not named after eith However, because there is no additional logic required for the Soviet War Miner there isn't actually a deriv LevelEdit is really an instance of this base class script.

Subject: Re: Turret and GT not shooting

Posted by robbyke on Thu, 14 Jun 2012 09:25:01 GMT

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danpaul88 wrote on Thu, 14 June 2012 10:06Alternatively if you change;

params.AttackCheckBlocked = false;

to

params.AttackCheckBlocked = true;

i tried that:

my gun would stop shooting BUT it would still follow the target

so it wont give an action complete it just wont fire

as soon as target pops up again it will fire again

however this is what happened in my case could be this is not for all cases

if you want i can try it out to full extend

i think its just that it wont attack if it cant hit a target but it wont lose track of it (you need to do action reset for it)

Subject: Re: Turret and GT not shooting

Posted by danpaul88 on Thu, 14 Jun 2012 10:28:54 GMT

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Looking at your code, there is a problem with your Timer_Expired function. In the case that timer number == 2 and IsValidEnemy returns true you don't restart the timer, thus you never re-check the enemy is valid after the initial check. That could be the source of your problems.

Subject: Re: Turret and GT not shooting

Posted by robbyke on Thu, 14 Jun 2012 12:20:01 GMT

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it indeed was ive changed the check

but i used it for continuous fire

else full automatic guns keep pausing there fire

ive now changed that to 10 seconds

and removed the check for a valid target

PS: even with that	check if i had	check attack	blocked a	and it would	do action	complete	(becuase it
cant hit his target)	it would reset						

so the checkblocked will only stop its fire when he cant hit you