

FireImpact 1.0

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FireImpact.EffectArea Class Reference

Class [EffectArea](#) models a cone shaped volume in which soldiers will have temporary blindness and deafness effects when a large weapon fired.

Public Member Functions

	EffectArea (ref Weapon weapon, AreaProps.Type type, AreaProps.Priority priority, double rotation, AreaProps.Range lengthFactor, double impactFactorAtConeTip, double impactFactorAtConeBase, double coneAngle=50)
	This constructor initializes a new EffectArea in which the soldiers will be temporarily blinded and/or deafened when the owner weapon of this EffectArea is fired.
double	GetLength ()
	Multiplies the LengthFactor of this EffectArea and the muzzleCaliber of the Weapon it's attached to.
Vector3D	GetDirection ()
	The [X,Y,Z] vector the axix of Effect Area Cone is pointing.
bool	IsPointInsideEffectArea (Vector3D point)
	Checks if <i>point</i> is inside of this Effect Area.

Properties

double	Rotation [get]
	Rotation RELATIVE to muzzle direction, in Degrees

Weapon	Weapon [get]
	The ref of the weapon this Effect Area is attached to.

double	ImpactFactorAtConeTip [get]
	This parameter is used to calculate MAX. blindness and deafness durations of this EffectArea . Durations will decrease linearly as the distance from muzzle increases and will reach to MIN. at the cone base.

double	ImpactFactorAtConeBase [get]
	This parameter is used to calculate MIN. blindness and deafness durations of this EffectArea . Durations will increase linearly as the distance from muzzle decreases and will reach to MAX. at the cone tip.

AreaProps.Type	Type [get]
	Type of the Effect Area

AreaProps.Priority	Priority [get]
	When an Effect Area is overlapping another, the one with the higher priority will be taken into account.

Detailed Description

Class **EffectArea** models a cone shaped volume in which soldiers will have temporary blindness and deafness effects when a large weapon fired.

Uses Degrees for Angles

Constructor & Destructor Documentation

◆ EffectArea()

```
FireImpact.EffectArea.EffectArea ( ref Weapon      weapon,  
                                   AreaProps.Type   type,  
                                   AreaProps.Priority priority,  
                                   double            rotation,  
                                   AreaProps.Range   lengthFactor,  
                                   double            impactFactorAtConeTip,  
                                   double            impactFactorAtConeBase,  
                                   double            coneAngle = 50  
                                   )
```

This constructor initializes a new **EffectArea** in which the soldiers will be temporarily blinded and/or deafened when the owner weapon of this **EffectArea** is fired.

Parameters

weapon	The ref of the weapon this Effect Area is attached to.
type	Type of the Effect Area
priority	When an Effect Area is overlapping another, the one with the higher priority will be taken into account
rotation	Rotation RELATIVE to muzzle direction, in Degrees
coneAngle	Arc of Cone. Default set to 50.
lengthFactor	This parameter will be multiplied by the muzzle caliber and used to find the cone Length. (aka. r, Radius at the documentation image)
impactFactorAtConeTip	This parameter is used to calculate MAX. blindness and deafness durations of this EffectArea . Durations will decrease linearly as the distance from muzzle increases and will reach to MIN. at the cone base.
impactFactorAtConeBase	This parameter is used to calculate MIN. blindness and deafness durations of this EffectArea . Durations will increase linearly as the distance from muzzle decreases and will reach to MAX. at the cone tip.

Member Function Documentation

◆ GetDirection()

Vector3D FireImpact.EffectArea.GetDirection ()

The [X,Y,Z] vector the axix of Effect Area Cone is pointing.

Returns

Returns current The [X,Y,Z] vector the axix of Effect Area Cone is pointing.

◆ GetLength()

double FireImpact.EffectArea.GetLength ()

Multiplies the LengthFactor of this **EffectArea** and the muzzleCaliber of the **Weapon** it's attached to.

Returns

Length of **EffectArea** in meters. (AKA "r, radius" at documentation image.)

◆ IsPointInsideEffectArea()

bool FireImpact.EffectArea.IsPointInsideEffectArea (Vector3D **point**)

Checks if *point* is inside of this Effect Area.

Parameters

point The [X,Y,Z] point that will be checked.

Returns

Returns True if the *point* is inside of owner Effect Area. Otherwise False.

Property Documentation

◆ ImpactFactorAtConeBase

double FireImpact.EffectArea.ImpactFactorAtConeBase

get

This parameter is used to calculate MIN. blindness and deafness durations of this [EffectArea](#). Durations will increase linearly as the distance from muzzle decreases and will reach to MAX. at the cone tip.

◆ ImpactFactorAtConeTip

double FireImpact.EffectArea.ImpactFactorAtConeTip

get

This parameter is used to calculate MAX. blindness and deafness durations of this [EffectArea](#). Durations will decrease linearly as the distance from muzzle increases and will reach to MIN. at the cone base.

◆ Priority

AreaProps.Priority FireImpact.EffectArea.Priority

get

When an Effect Area is overlapping another, the one with the higher priority will be taken into account.

◆ Rotation

double FireImpact.EffectArea.Rotation

get

Rotation RELATIVE to muzzle direction, in Degrees

◆ Type

AreaProps.Type FireImpact.EffectArea.Type

get

Type of the Effect Area

◆ Weapon

Weapon FireImpact.EffectArea.Weapon



The ref of the weapon this Effect Area is attached to.

The documentation for this class was generated from the following file:

- C:/Users/JoeGillianW/source/repos/FireImpact/FireImpact/EffectArea.cs