MAGIO API DOCUMENTATION

Namespace Documentation

Magio Namespace Reference

MagioMagioClasses

1 interface **IInteractWithEffect**
   Implement this interface and you can catch collisions/touchs with effects. Example: SimpleInteractWithEffect.cs. Example in demoscene: Main camera, move to effect.

2 class **InvertCrawlForFadeOut**
   Inverts the effect crawl speed for fade out period.

3 class **MagioEffectPack**
   Represents one effect pack.

4 class **MagioEngine**
   Singleton to handle all the general Magio properties and settings

5 class **MagioLight**
   Attach this to your light, link MagioObjectEffect and set intensities to animate the light.

6 class **MagioMaterialAnimationSettings**
   Compatibilities are saved here to optimize the performance. You can also override these compatibilities to make different animations for different objects (or not to animate some).

7 class **MagioObjectEffect**
   Represents one attached effect on object (flame, plants, freeze etc.)

8 class **MagioObjectMaster**
   Master for all the effect on one object. Handles interaction and turns.

9 class **MagioPrefabDefaults**
   Attach this to VFX prefab if you want to override shader defaults with VFX specific values

10 class **MagioTriggerCallbacks**
   With this class you can for example set barrel to explode after 5 seconds

11 class **MaterialPropertySaver**
   Handles the saving of original material values (in case of 3rd-party shaders)

12 class **NullifyRuleSet**
   Represents global nullify ruleset. Effects will interact with each other according to these rules. Origin will nullify the target. Target cannot ignite if origin is enabled.

13 class **OAVAShaderCompatibilitySO**
   Compatibility with 3rd party shader. Compatible with Magio and Ignis

14 class **ParticleIgnite**
   Adds ability to Ignite the effect using particles.

15 class **ParticleNullify**
   Adds ability to Nullify/Extinguish the effect using particles.

16 class **RaycastIgnite**
   Adds ability to Ignite the effect using raycast.

17 class **RaycastNullify**
   Adds ability to Nullify/Extinguish the effect using Raycast.

18 class **SelfDestroy**

Destroys gameobject after a while.

19 class **SimpleInteractWithEffect**
*A template for interacting with MagioEffect using **IInteractWithEffect** interface.*

20 class **SphereIgnite**
Adds ability to Ignite the effect using Spherecast.

21 class **SphereNullify**
Adds ability to Nullify/Extinguish the effect using Spherecast.

22 class **SpreadNullify**
Nullifies the effect according to other effect (or own) spread.

23 class **SpreadPhysics**
Spreading physics. Creates overlap box and uses math to spread the effect if necessary.

24 class **VegetationStudioProTreeUnMasker**
Unmasks VSPro instance if necessary (not ignited).

25 class **VFXHelpers**
Helps handling the vfx properties

26 class **WindRetrieve**
Used to retrieve global wind.

Enumerations

27 enum **EffectClass** { **Default**, **Flame**, **Melt**, **Stone**, **Grass**, **Poison**, **Ice**, **Darkness**, **Electricity** }
28 enum **VFXSpawnerType** { **Mesh**, **SkinnedMesh** }
29 enum **VFXParameterType** { **ANIMATION_CURVE**, **BOOL**, **FLOAT**, **GRADIENT**, **INT**, **MATRIX**, **MESH**, **SKINNED_MESH_RENDERER**, **TEXTURE**, **UINT**, **VECTOR2**, **VECTOR3**, **VECTOR4**, **COLOR** }
30 enum **EffectBehaviourMode** { **Enable**, **Spread** }

Class DocumentationClass Documentation

Magio.MagioMaterialAnimationSettings.CompatibilityOverride Struct Reference

Magio.MagioMaterialAnimationSettings.CompatibilityOverrideMagio.MagioMaterialAnimationSettings.CompatibilityOverridePublic Attributes

31	int **materialIndex**
32	**OAVAShaderCompatibilitySO shaderComp**

Magio.IInteractWithEffect Interface Reference

Magio.IInteractWithEffectMagio.IInteractWithEffect
Implement this interface and you can catch collisions/touchs with effects. Example: SimpleInteractWithEffect.cs. Example in demoscene: Main camera, move to effect.
Inherited by **Magio.SimpleInteractWithEffect**.

Public Member Functions

33   void **OnCollisionWithEffect** (GameObject magioObject)
  *Called on collision with the effect **SpreadPhysics***

Detailed Description

Implement this interface and you can catch collisions/touchs with effects. Example: SimpleInteractWithEffect.cs. Example in demoscene: Main camera, move to effect.

Member Function Documentation

OnCollisionWithEffect:Magio.IInteractWithEffectMagio.IInteractWithEffect:OnCollisionWithEffectvoid Magio.IInteractWithEffect.OnCollisionWithEffect (GameObject *magioObject*)

Called on collision with the effect **SpreadPhysics**

Parameters

magioObject	object which collides

Implemented in **Magio.SimpleInteractWithEffect** (*p.*).

Magio.InvertCrawlForFadeOut Class Reference

Magio.InvertCrawlForFadeOutMagio.InvertCrawlForFadeOut
Inverts the effect crawl speed for fade out period.
Inherits MonoBehaviour.

Public Attributes

34   **MagioObjectEffect effect**

Detailed Description

Inverts the effect crawl speed for fade out period.

Magio.MagioObjectEffect.MagioEffectObject Struct Reference

Magio.MagioObjectEffect.MagioEffectObjectMagio.MagioObjectEffect.MagioEffectObjectPublic Attributes

35   Transform **boundObject**
36   SkinnedMeshRenderer **skinnedMeshRenderer**
37   VisualEffect **magioEffect**
38   float **size**

Magio.MagioEffectPack Class Reference

Magio.MagioEffectPackMagio.MagioEffectPack
Represents one effect pack.
Inherits ScriptableObject.

Public Attributes

39   List< GameObject > **meshEffects** = new List<GameObject>()
40   List< GameObject > **skinnedMeshEffects** = new List<GameObject>()

Detailed Description

Represents one effect pack.

Magio.MagioEngine Class Reference

Magio.MagioEngineMagio.MagioEngine

Singleton to handle all the general **Magio** properties and settings

Inherits MonoBehaviour.

Public Member Functions

41 void **Start** ()

42 void **PauseEffects** ()
Pauses the effects.

43 void **ResumeEffects** ()
Resumes the effects (if paused)

44 float **GetNullifyRuleLagBehind** (EffectClass origin, EffectClass target)
Gets nullify rule parameters if it exists. Returns -1 if rule does not exist.

45 List< **OAVAShaderCompatibilitySO** > **GetCompatibleShaders** ()
Gets all compatible shaders.

46 GameObject **MaskUnityTerrainTreeAndInstanceAPrefabIfNecessary** (GameObject other, Vector3
    hitPoint, EffectClass affectedClass, float dist)
*Masks a terrain tree and spawns a prefab on it's place if all the conditions are fulfilled.
BEWARE: This is slow operation if there are lots of trees.*

47 GameObject **MaskInstanceAndSpawnAPrefabIfNecessary** (GameObject other, EffectClass
    affectedClass)
Masks Vegetation Studio instance and spawns a prefab in it's place if conditions are fulfilled.

Public Attributes

48 Transform **effectParent**
49 Transform **runTimeTreeParent**
50 Transform **vsProMaskParent**
51 Transform **splashEffectParent**
52 **WindRetrieve flameWindRetriever**
53 **NullifyRuleSet nullifyRuleSet**
54 List< **MagioEffectPack** > **effectPacks** = new List<**MagioEffectPack**>()
55 List< **OAVAShaderCompatibilitySO** > **compatibleShaders** = new
    List<**OAVAShaderCompatibilitySO**>()
56 bool **unityTerrainCompatible** = false
57 bool **VegetationStudioProCompatible** = false
58 float **globalParticleMultiplier** = 1
59 float **SpreadPhysicsCheckFrequency** = 5
60 bool **enableOnTouchChecks** = false
61 bool **modifyEffectParametersOnRuntime** = true
62 bool **creatingDebug** = false

63 bool **pause** = false

Static Public Attributes

64 static **MagioEngine _instance**

Properties

65 static **MagioEngine instance** `[get]`

Detailed Description

Singleton to handle all the general **Magio** properties and settings

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Member Function Documentation

GetCompatibleShaders:Magio.MagioEngineMagio.MagioEngine:GetCompatibleShadersList< OAVAShaderCompatibilitySO > Magio.MagioEngine.GetCompatibleShaders ()

Gets all compatible shaders.

Returns
List of compatible shaders.

GetNullifyRuleLagBehind:Magio.MagioEngineMagio.MagioEngine:GetNullifyRuleLagBehindfloat Magio.MagioEngine.GetNullifyRuleLagBehind (EffectClass *origin*, EffectClass *target*)

Gets nullify rule parameters if it exists. Returns -1 if rule does not exist.

Parameters

origin	origin class
target	Target class

Returns
-1 if rule does not exist. Else NullifyLagBehind_m

MaskInstanceAndSpawnAPrefabIfNecessary:Magio.MagioEngineMagio.MagioEngine:MaskInstanceAndSpawnAPrefabIfNecessaryGameObject Magio.MagioEngine.MaskInstanceAndSpawnAPrefabIfNecessary (GameObject *other*, EffectClass *affectedClass*)

Masks Vegetation Studio instance and spawns a prefab in it's place if conditions are fulfilled.

Parameters

other	Spreading Gameobject

affectedClass	Class affected by this spreading

Returns

Spawned Prefab

MaskUnityTerrainTreeAndInstanceAPrefabIfNecessary:Magio.MagioEngineMagio.MagioEngine:MaskUnityTerrainTreeAndInstanceAPrefabIfNecessaryGameObject Magio.MagioEngine.MaskUnityTerrainTreeAndInstanceAPrefabIfNecessary (GameObject *other*, Vector3 *hitPoint*, EffectClass *affectedClass*, float *dist*)

Masks a terrain tree and spawns a prefab on it's place if all the conditions are fulfilled. BEWARE: This is slow operation if there are lots of trees.

Parameters

other	Spreading object
hitPoint	Where it is hit
affectedClass	Which class is affected
dist	Distance from the hitpoint

Returns

Spawned gameobject

MagioEventInvoker Class Reference

MagioEventInvokerMagioEventInvoker
Ability to invoke events
Inherits MonoBehaviour.

Public Attributes

66   UnityEvent **BeingNullified**
     Called when effect is being nullified currently.

67   UnityEvent **Nullified**
68   UnityEvent **FadedOut**
69   UnityEvent **Ignited**

Detailed Description

Ability to invoke events

Magio.MagioLight Class Reference

Magio.MagioLightMagio.MagioLight
Attach this to your light, link **MagioObjectEffect** and set intensities to animate the light.
Inherits MonoBehaviour.

Public Member Functions

70   void **SmoothEnable** ()
     Smoothly linearly enables the light and starts the interpolation

71   void **SmoothDisable** ()
     Disables the light. Interpolate to afterEffectIntensity.

Public Attributes

72   **MagioObjectEffect attachedMagioObject**
73   float **flickerMultiplier** = 0.3f
74   float **flickerSpeed** = 5
75   float **achieveMaxIntensityTime** = 2
76   float **startIntensity** = 0
77   float **effectOnIntensity** = 2
78   float **afterEffectIntensity** = 0

Detailed Description

Attach this to your light, link **MagioObjectEffect** and set intensities to animate the light.

Magio.MagioMaterialAnimationSettings Class Reference

Magio.MagioMaterialAnimationSettingsMagio.MagioMaterialAnimationSettings Compatibilities are saved here to optimize the performance. You can also override these compatibilities to make different animations for different objects (or not to animate some). Inherits MonoBehaviour.

Classes

79   struct **CompatibilityOverride**

Public Member Functions

80   List< **OAVAShaderCompatibilitySO** > **GetNewCompatibilitiesList** ()
     Updates the compatibility list

81   List< **OAVAShaderCompatibilitySO** > **GetCompatibilities** ()
     Gets the existing (or lazy initializes in case of first) list of compatibilites

Public Attributes

82   List< **CompatibilityOverride** > **compatibilitySettingOverrides** = new
     List<**CompatibilityOverride**>()

Detailed Description

Compatibilities are saved here to optimize the performance. You can also override these compatibilities to make different animations for different objects (or not to animate some).

Member Function Documentation

GetCompatibilities:Magio.MagioMaterialAnimationSettingsMagio.MagioMaterialA nimationSettings:GetCompatibilitiesList< OAVAShaderCompatibilitySO > Magio.MagioMaterialAnimationSettings.GetCompatibilities ()

Gets the existing (or lazy initializes in case of first) list of compatibilites

Returns
     List of comps for current materials

GetNewCompatibilitiesList:Magio.MagioMaterialAnimationSettingsMagio.MagioMaterialAni mationSettings:GetNewCompatibilitiesListList< OAVAShaderCompatibilitySO > Magio.MagioMaterialAnimationSettings.GetNewCompatibilitiesList ()

Updates the compatibility list

Returns

List of current compatibilities

Magio.MagioObjectEffect Class Reference

Magio.MagioObjectEffectMagio.MagioObjectEffect
Represents one attached effect on object (flame, plants, freeze etc.)
Inherits MonoBehaviour.

Classes

83 struct **MagioEffectObject**
84 struct **VFXProps**

Public Types

85 enum **CalculationArea** { **None**, **Object**, **Vegetation** }
86 enum **CanBeReanimated** { **No**, **Only_After_Nullify**, **Always** }
87 enum **MagioShaderEffectMode** { **Emission_Overlay**, **Dissolve**, **Texture_Override** }

Public Member Functions

88 void **Setup** ()
    Initial setup. Call this if you need to change target gameobject runtime etc.

89 void **CheckForObjectDelete** ()
    Checks if the object should be deleted.

90 void **SaveOriginalMaterialShaderProperties** ()
    *Saves the original shader/material properties which are to be animated by **Magio**.*

91 void **ResetMaterialFromMagio** ()
    *Resets the material values which were animated by **Magio** to the originals. Does not reset other material shader properties.*

92 void **ResetObj** ()
    Resets flammable object values. Does not reset the shader. Please Call ResetMaterialFromIgnis() to reset the shader.

93 void **AnimateFromCenter** ()
    Animates the object from the center of transform.

94 void **TryToAnimateEffect** (Vector3 effectSpreadOrigin, float addToAnimateProgress)
    Tries to animate the object. (Ignition time, canBeReanimated etc. matters)

95 void **IncrementalNullify** (Vector3 position, float startRadius, float radiusIncrement)
    Incrementally nullifies the effect from position.

96 void **SetNullifyArea** (Vector3 center, float radius)
    Sets the nullify area.

97   void **UpdateVFX** (List< **MagioEffectObject** > magioEffs, float spread, Vector3 spreadOriginLocal, float approxSize)
Updates all the effects according to parameters on this object.

98   void **RefreshAndResetVFXProperties** ()
Resets all the vfx properties according to EffectPrefab

99   void **UpdateVFXProperties** ()
Updates the properties list but does not override any.

100   **VFXProps GetVFXPropertyValue** (string propertyName)
Gets VFX property with the name

101   bool **SetVFXPropertyValue** (**VFXProps** prop)
Sets VFX property value.

102   bool **HasEffectEnded** ()
Has the object already burnt out?

103   bool **IsExtinguished** ()
Was the object extinguished

104   float **GetNullifyRadius** ()
Return the radius of the current extinguish effect

105   Vector3 **GetNullifyCenter** ()
Return the center of the current extinguish effect

106   float **GetCurrentIgnitionProgress** ()
Returns current ignition progress

107   Vector3 **GetEffectOrigin** ()
Gets Position of the origin of the spread

108   float **GetObjectApproxSize** ()
Gets the approximated longest size of an object

Public Attributes

109   bool **useOnThisGameObject** = true
110   GameObject **targetGameObject**

```csharp
111 EffectBehaviourMode effectBehaviourType = EffectBehaviourMode.Spread
112 bool spreadToOtherObjects = true
113 EffectClass effectClass = EffectClass.Default
114 LayerMask spreadLayerMask = ~0
115 List< Collider > spreadingColliders = new List<Collider>()
116 bool useEffectOnAllMeshes = true
117 List< MeshFilter > magioMeshes = new List<MeshFilter>()
118 bool useAllCollidersToSpread = true
119 Transform customStartOrigin
120 float ignitionTime = 0
121 bool affectedByWind = true
122 Vector3 addedExternalVelocity = new Vector3()
123 MagioObjectEffect.CanBeReanimated canBeReAnimated =
    MagioObjectEffect.CanBeReanimated.No
124 bool effectOnForever = false
125 float fadeOutStart_s = 30
126 float fadeOutLength_s = 10
127 float effectCrawlSpeed = 1f
128 float maxSpread = 10000f
129 bool enableMaterialAnimation = true
130 Color shaderEmissionColor = new Color(241f / 255f, 121f / 255f, 11f / 255, 1f)
131 float shaderToEffectEndInterpolateSpeed = 0.03f
132 float shaderEmissionMultiplier = 1
133 float achieveEmissionColorTime_s = 5
134 float shaderColorNoise = 0.05f
135 float shaderColorNoiseSpeed = 1
136 MagioShaderEffectMode magioShaderEffectMode = MagioShaderEffectMode.Emission_Overlay
137 float dissolveEmissionEdgeWidth = 0.2f
138 Texture2D overrideAlbedoMap
139 Texture2D overrideNormalMap
140 Vector2 overrideTextureTiling = new Vector2(1, 1)
141 Vector2 overrideTextureOffset
142 bool blendToOtherTexture = false
143 Texture2D blendAlbedoMap
144 Texture2D blendNormalMap
145 float blendTextureNormalStrength = 1
146 Vector2 blendTextureTiling = new Vector2(1,1)
147 Vector3 effectSpreadAreaAddition = new Vector3(0.5f, 0.5f, 0.5f)
148 bool beginEffectOnStart = false
149 float effectSpread = 0
150 float effectEnabledTimer = 0
151 bool effectEnabled = false
152 bool addSFXRuntime = false
153 float sfxPitchRandomization = 0.3f
154 float sfxStartTimeRandomizationMax = 10
155 GameObject effectSFX
156 List< AudioSource > allEffectSFX = new List<AudioSource>()
157 float fullNullifyToughness = 0.7f
158 float backSpreadCoolDown_s = 5
159 VFXSpawnerType vfxSpawnerType = VFXSpawnerType.Mesh
160 bool slowAnimationOnEffectStart = false
161 Animator animator
162 float animationSlowDownSpeed = 0.2f
163 float animationSlowDownTargetValue = 0
```

164 bool **deleteObjectAfterFullSpread** = false
165 bool **isSplashEffect** = false
166 bool **deleteObjectAfterFadeOut** = false
167 List< **VFXProps** > **vfxProperties** = new List<**VFXProps**>()
168 int **openTabUpper** = 0
169 int **openTabLower** = 0
170 int **effectPackNumber** = 0
171 int **effectNumber** = 0
172 int **propertyCount** = 0

Properties

173 GameObject **EffectPrefab** `[getset]`
   Current effect prefab in use

Detailed Description

Represents one attached effect on object (flame, plants, freeze etc.)

Member Function Documentation

GetCurrentIgnitionProgress:Magio.MagioObjectEffectMagio.MagioObjectEffect:GetCurrentIgnitionProgressfloat Magio.MagioObjectEffect.GetCurrentIgnitionProgress ()

Returns current ignition progress

Returns
ignition progress in seconds

GetEffectOrigin:Magio.MagioObjectEffectMagio.MagioObjectEffect:GetEffectOriginVector3 Magio.MagioObjectEffect.GetEffectOrigin ()

Gets Position of the origin of the spread

Returns
Position of the origin of the spread

GetNullifyCenter:Magio.MagioObjectEffectMagio.MagioObjectEffect:GetNullifyCenterVector3 Magio.MagioObjectEffect.GetNullifyCenter ()

Return the center of the current extinguish effect

Returns

World position

GetNullifyRadius:Magio.MagioObjectEffectMagio.MagioObjectEffect:GetNullifyRadiusfloat Magio.MagioObjectEffect.GetNullifyRadius ()

Return the radius of the current extinguish effect

Returns

radius in m

GetObjectApproxSize:Magio.MagioObjectEffectMagio.MagioObjectEffect:GetObjectApprox Sizefloat Magio.MagioObjectEffect.GetObjectApproxSize ()

Gets the approximated longest size of an object

Returns

GetVFXPropertyValue:Magio.MagioObjectEffectMagio.MagioObjectEffect:GetVFXProperty ValueVFXProps Magio.MagioObjectEffect.GetVFXPropertyValue (string *propertyName*)

Gets VFX property with the name

Parameters

propertyName	name of the property (Case sensitive)

Returns

Property

HasEffectEnded:Magio.MagioObjectEffectMagio.MagioObjectEffect:HasEffectEndedbool Magio.MagioObjectEffect.HasEffectEnded ()

Has the object already burnt out?

Returns

IncrementalNullify:Magio.MagioObjectEffectMagio.MagioObjectEffect:IncrementalNullifyvo id Magio.MagioObjectEffect.IncrementalNullify (Vector3 *position*, float *startRadius*, float *radiusIncrement*)

Incrementally nullifies the effect from position.

Parameters

position	Current nullify position

startRadius	Radius of the nullify
radiusIncrement	Radius incremented in every call, if new position is not added

IsExtinguished:Magio.MagioObjectEffectMagio.MagioObjectEffect:IsExtinguishedbool Magio.MagioObjectEffect.IsExtinguished ()

Was the object extinguished

Returns

SetNullifyArea:Magio.MagioObjectEffectMagio.MagioObjectEffect:SetNullifyAreavoid Magio.MagioObjectEffect.SetNullifyArea (Vector3 *center*, float *radius*)

Sets the nullify area.

Parameters

center	Center of the area
radius	Radius of the area

SetVFXPropertyValue:Magio.MagioObjectEffectMagio.MagioObjectEffect:SetVFXPropertyV aluebool Magio.MagioObjectEffect.SetVFXPropertyValue (VFXProps *prop*)

Sets VFX property value.

Parameters

prop	Property to replace with right name

Returns

True if property was valid. False if it was not

TryToAnimateEffect:Magio.MagioObjectEffectMagio.MagioObjectEffect:TryToAnimateEffec tvoid Magio.MagioObjectEffect.TryToAnimateEffect (Vector3 *effectSpreadOrigin*, float *addToAnimateProgress*)

Tries to animate the object. (Ignition time, canBeReanimated etc. matters)

Parameters

effectSpreadOrigin	Where should the effect spread.
addToAnimatePro gress	How much the ignition time/Progress should be added

UpdateVFX:Magio.MagioObjectEffectMagio.MagioObjectEffect:UpdateVFXvoid Magio.MagioObjectEffect.UpdateVFX (List< MagioEffectObject > *magioEffs*, float *spread*, Vector3 *spreadOriginLocal*, float *approxSize*)

Updates all the effects according to parameters on this object.

Parameters

magioEffs	Effects to update
spread	Spread of the effects
spreadOriginLocal	Local origin of the spread
approxSize	Approx size of the object effect is attached

Magio.MagioObjectMaster Class Reference

Magio.MagioObjectMasterMagio.MagioObjectMaster
Master for all the effect on one object. Handles interaction and turns.
Inherits MonoBehaviour.

Public Member Functions

174 void **CalculateApproxSize** ()
   Calculates approx size of object from the renderer bounds.

175 bool **CanIUseMaterialAnimation** (**MagioObjectEffect** magioObj, bool isMagioShader)
   Returns true if other effects are not using materialAnimation

176 bool **IsEmissionOverlayerEffectEnabled** ()
177 bool **CanEffectEnable** (**MagioObjectEffect** magioObj)
178 void **HandleNewEffectEnable** (**MagioObjectEffect** magioObj)
179 void **AddMagioObject** (**MagioObjectEffect** magioObj)
180 void **RemoveMagioObject** (**MagioObjectEffect** magioObj)

Public Attributes

181 List< **MagioObjectEffect** > **magioObjects** = new List<**MagioObjectEffect**>()
182 GameObject **effectParent**

Properties

183 float **ApproxSize** `[get]`
184 Vector3 **ApproxCenter** `[get]`

Detailed Description

Master for all the effect on one object. Handles interaction and turns.

Member Function Documentation

CanIUseMaterialAnimation:Magio.MagioObjectMasterMagio.MagioObjectMaster: CanIUseMaterialAnimationbool Magio.MagioObjectMaster.CanIUseMaterialAnimation (MagioObjectEffect *magioObj*, bool *isMagioShader*)

Returns true if other effects are not using materialAnimation

Parameters

magioObj	

Returns

Magio.MagioPrefabDefaults Class Reference

Magio.MagioPrefabDefaultsMagio.MagioPrefabDefaults

Attach this to VFX prefab if you want to override shader defaults with VFX specific values

Inherits MonoBehaviour.

Public Attributes

185 EffectClass **effectClass** = EffectClass.Default
186 bool **enableMaterialAnimation** = true
187 Color **shaderEmissionColor** = new Color(241f / 255f, 121f / 255f, 11f / 255, 1f)
188 float **shaderToEffectEndInterpolateSpeed** = 0.03f
189 float **shaderEmissionMultiplier** = 1
190 float **achieveEmissionColorTime_s** = 20
191 float **shaderColorNoise** = 0.05f
192 float **shaderColorNoiseSpeed** = 1
193 MagioObjectEffect.MagioShaderEffectMode **magioShaderEffectMode** =
     MagioObjectEffect.MagioShaderEffectMode.Emission_Overlay
194 Texture2D **overrideAlbedoMap**
195 Texture2D **overrideNormalMap**
196 Vector2 **overrideTextureTiling**
197 Vector2 **overrideTextureOffset**
198 bool **blendToOtherTexture**
199 Texture2D **blendAlbedoMap**
200 Texture2D **blendNormalMap**
201 float **blendTextureNormalStrength**
202 Vector2 **blendTextureTiling**
203 GameObject **effectSFX**
204 bool **slowAnimationOnEffectStart** = false
205 float **animationSlowDownSpeed** = 0.2f
206 float **animationSlowDownTargetValue** = 0

Detailed Description

Attach this to VFX prefab if you want to override shader defaults with VFX specific values

Magio.MagioTriggerCallbacks Class Reference

Magio.MagioTriggerCallbacksMagio.MagioTriggerCallbacks
With this class you can for example set barrel to explode after 5 seconds
Inherits MonoBehaviour.

Public Member Functions

207 void **TriggerEvents** ()

Public Attributes

208 float **delaySeconds** = 5f
209 UnityEvent **CallbackFunctions**

Detailed Description

With this class you can for example set barrel to explode after 5 seconds

Magio.MaterialPropertySaver Class Reference

Magio.MaterialPropertySaverMagio.MaterialPropertySaver
Handles the saving of original material values (in case of 3rd-party shaders)
Inherits MonoBehaviour.

Classes

210 struct **MatProps**

Public Member Functions

211 void **SaveOriginalMaterialShaderProperties** ()
Saves the original shader/material properties which are to be animated by Ignis.

212 void **SaveSharedOriginalMaterialShaderProperties** ()
Saves the original shader/material properties which are to be animated by Ignis.

213 void **ResetMaterialFromMagio** ()
Resets the material values which were animated by Ignis to the originals. Does not reset other material shader properties.

Properties

214 Dictionary< Material, **MatProps** > **OriginalMaterialValues** `[get]`

Detailed Description

Handles the saving of original material values (in case of 3rd-party shaders)

Magio.MaterialPropertySaver.MatProps Struct Reference

Magio.MaterialPropertySaver.MatPropsMagio.MaterialPropertySaver.MatPropsPublic Attributes

215 bool **isMagioShader**
216 Renderer **renderer**
217 string **originalMainColorName**
218 Color **originalMainColor**
219 string **originalEmissionColorName**
220 Color **originalEmissionColor**
221 Dictionary< string, float > **originalNameFloatPairs**

Magio.NullifyRuleSet.NullifyRule Struct Reference

Magio.NullifyRuleSet.NullifyRuleMagio.NullifyRuleSet.NullifyRulePublic Attributes

222 EffectClass **originClass**
223 EffectClass **targetClass**
224 float **nullifyLagBehind_m**

Magio.NullifyRuleSet Class Reference

Magio.NullifyRuleSetMagio.NullifyRuleSet
Represents global nullify ruleset. Effects will interact with each other according to these rules. Origin will nullify the target. Target cannot ignite if origin is enabled.
Inherits ScriptableObject.

Classes

225 struct **NullifyRule**

Public Member Functions

226 float **GetNullifyRuleLagBehind** (EffectClass origin, EffectClass target)
    Gets nullify rule parameters if it exists. Returns -1 if rule does not exist.

Public Attributes

227 List< **NullifyRule** > **nullifyRules** = new List<**NullifyRule**>()
228 Dictionary< EffectClass, Dictionary< EffectClass, float > > **nullifyRuleDict** = new
    Dictionary<EffectClass, Dictionary<EffectClass, float>>()

Detailed Description

Represents global nullify ruleset. Effects will interact with each other according to these rules. Origin will nullify the target. Target cannot ignite if origin is enabled.

Member Function Documentation

GetNullifyRuleLagBehind:Magio.NullifyRuleSetMagio.NullifyRuleSet:GetNullifyRuleLagBehindfloat Magio.NullifyRuleSet.GetNullifyRuleLagBehind (EffectClass *origin*, EffectClass *target*)

Gets nullify rule parameters if it exists. Returns -1 if rule does not exist.

Parameters

origin	origin class
target	Target class

Returns
    -1 if rule does not exist. Else NullifyLagBehind_m

Magio.OAVAShaderCompatibilitySO Class Reference

Magio.OAVAShaderCompatibilitySOMagio.OAVAShaderCompatibilitySO
Compatibility with 3rd party shader. Compatible with **Magio** and Ignis
Inherits ScriptableObject.

Classes

229 class **ShaderProperty**

Public Attributes

230 string **ShaderCheckProperty** = ""
231 string **ShaderName** = ""
232 string **ShaderMainColorPropertyName** = "_MainColor"
233 string **ShaderEmissionColorPropertyName** = ""
234 List< string > **onEffectStartEnableKeywords** = new List<string>()
235 List< MaterialGlobalIlluminationFlags > **onEffectStartEnableIlluminationFlag** = new
    List<MaterialGlobalIlluminationFlags>()
236 List< **ShaderProperty** > **duringEffectChangeProperties** = new List<**ShaderProperty**>()
237 List< **ShaderProperty** > **onBurnoutChangeProperties** = new List<**ShaderProperty**>()
238 List< **ShaderProperty** > **onTouchChangeProperties** = new List<**ShaderProperty**>()

Detailed Description

Compatibility with 3rd party shader. Compatible with **Magio** and Ignis

Magio.ParticleIgnite Class Reference

Magio.ParticleIgniteMagio.ParticleIgnite
Adds ability to Ignite the effect using particles.
Inherits MonoBehaviour.

Public Attributes

239 float **IgnitePowerMultiplier** = 5f
240 EffectClass **affectedClass** = EffectClass.Default
241 GameObject **splashEffectPrefab**

Detailed Description

Adds ability to Ignite the effect using particles.

Magio.ParticleNullify Class Reference

Magio.ParticleNullifyMagio.ParticleNullify
Adds ability to Nullify/Extinguish the effect using particles.
Inherits MonoBehaviour.

Public Attributes

242 float **particleNullifyRadius** = 1f
243 float **incrementalPower** = 0.0005f
244 EffectClass **affectedClass** = EffectClass.Default

Detailed Description

Adds ability to Nullify/Extinguish the effect using particles.

Magio.RaycastIgnite Class Reference

Magio.RaycastIgniteMagio.RaycastIgnite
Adds ability to Ignite the effect using raycast.
Inherits MonoBehaviour.

Public Member Functions

245 void **CastRayCastIgnite** ()

Casts a raycast sphere once looking for ignite the flammable objects. Uses the public variables for the parameters.

Public Attributes

246 Vector3 **direction** = new Vector3(0, -1, 0)
247 Vector3 **startOffset** = new Vector3(0, 0, 0)
248 float **checkFrequency** = 10
249 float **raycastRadius** = 0.1f
250 float **IgnitePowerMultiplier** = 5f
251 float **maxDist** = 3f
252 LayerMask **mask** = ~0
253 EffectClass **affectedClass** = EffectClass.Default
254 bool **repeatingRaycast** = true
255 GameObject **splashEffectPrefab**

Detailed Description

Adds ability to Ignite the effect using raycast.

Magio.RaycastNullify Class Reference

Magio.RaycastNullifyMagio.RaycastNullify
Adds ability to Nullify/Extinguish the effect using Raycast.
Inherits MonoBehaviour.

Public Member Functions

256 void **CastRayCastNullify** ()

Casts a raycast sphere looking for extinguishing the flammable objects. Uses the public variables for the parameters.

Public Attributes

257 Vector3 **direction** = new Vector3(0, -1, 0)
258 Vector3 **startOffset** = new Vector3(0, 0, 0)
259 float **checkFrequency** = 10
260 float **raycastRadius** = 0.1f
261 float **radiusIncrement** = 0.01f
262 float **maxDist** = 3f
263 LayerMask **mask** = ~0
264 EffectClass **affectedClass** = EffectClass.Default
265 bool **repeatingRaycast** = true
266 bool **goThroughObjects** = true

Detailed Description

Adds ability to Nullify/Extinguish the effect using Raycast.

Magio.SelfDestroy Class Reference

Magio.SelfDestroyMagio.SelfDestroy
Destroys gameobject after a while.
Inherits MonoBehaviour.

Public Attributes

267 float **destroyDelay** = 7

Detailed Description

Destroys gameobject after a while.

Magio.OAVAShaderCompatibilitySO.ShaderProperty Class Reference

Magio.OAVAShaderCompatibilitySO.ShaderPropertyMagio.OAVAShaderCompatibilitySO.ShaderPropertyPublic Attributes

268 string **name** = ""
269 float **targetValue** = 0
270 float **speedMultiplier** = 1

Magio.SimpleInteractWithEffect Class Reference

Magio.SimpleInteractWithEffectMagio.SimpleInteractWithEffect
A template for interacting with MagioEffect using **IInteractWithEffect** interface.
Inherits MonoBehaviour, and **Magio.IInteractWithEffect**.

Public Member Functions

271 void **OnCollisionWithEffect** (GameObject magioObject)
    *Called on collision with the effect **SpreadPhysics***

Detailed Description

A template for interacting with MagioEffect using **IInteractWithEffect** interface.

Member Function Documentation

OnCollisionWithEffect:Magio.SimpleInteractWithEffectMagio.SimpleInteractWith Effect:OnCollisionWithEffectvoid
Magio.SimpleInteractWithEffect.OnCollisionWithEffect (GameObject *magioObject*)

Called on collision with the effect **SpreadPhysics**

Parameters

magioObject	object which collides

Implements **Magio.IInteractWithEffect** (*p.*).

Magio.SphereIgnite Class Reference

Magio.SphereIgniteMagio.SphereIgnite
Adds ability to Ignite the effect using Spherecast.
Inherits MonoBehaviour.

Public Member Functions

272 void **SphereIgniteCast** ()

Casts a raycast sphere once looking for ignite the flammable objects. Uses the public variables for the parameters.

Public Attributes

273 float **checkFrequency** = 10
274 float **raycastRadius** = 1f
275 float **IgnitePowerMultiplier** = 5f
276 LayerMask **mask** = ~0
277 EffectClass **affectedClass** = EffectClass.Default
278 bool **repeatingRaycast** = true
279 GameObject **splashEffectPrefab**

Detailed Description

Adds ability to Ignite the effect using Spherecast.

Magio.SphereNullify Class Reference

Magio.SphereNullifyMagio.SphereNullify
Adds ability to Nullify/Extinguish the effect using Spherecast.
Inherits MonoBehaviour.

Public Types

280 enum **NullifyMode** { **Area**, **Incremental** }

Public Member Functions

281 void **SphereNullifyCast** ()

Casts a raycast sphere once looking for ignite the flammable objects. Uses the public variables for the parameters.

Public Attributes

282 NullifyMode **nullifyMode** = NullifyMode.Area
283 float **checkFrequency** = 10
284 float **raycastRadius** = 1f
285 LayerMask **mask** = ~0
286 bool **repeatingRaycast** = true
287 EffectClass **affectedClass** = EffectClass.Default

Detailed Description

Adds ability to Nullify/Extinguish the effect using Spherecast.

Magio.SpreadNullify Class Reference

Magio.SpreadNullifyMagio.SpreadNullify
Nullifies the effect according to other effect (or own) spread.
Inherits MonoBehaviour.

Public Attributes

288 float **nullifyBehindLag_m** = 0.3f
289 **MagioObjectEffect spreader**

Detailed Description

Nullifies the effect according to other effect (or own) spread.

Magio.SpreadPhysics Class Reference

Magio.SpreadPhysicsMagio.SpreadPhysics
Spreading physics. Creates overlap box and uses math to spread the effect if necessary.
Inherits MonoBehaviour.

Public Member Functions

290 void **StartTrigger** ()
  Starts the spread.

291 void **SpreadPhysicsUpdate** ()
  One update call for spread physics.

Public Attributes

292 **MagioObjectEffect myMagioObj**

Detailed Description

Spreading physics. Creates overlap box and uses math to spread the effect if necessary.

Magio.VegetationStudioProTreeUnMasker Class Reference

Magio.VegetationStudioProTreeUnMaskerMagio.VegetationStudioProTreeUnMasker
Unmasks VSPro instance if necessary (not ignited).
Inherits MonoBehaviour.

Public Member Functions

293 void **Unmask** ()
  Unmask saved instance.

Public Attributes

294 GameObject **mask**
295 **MagioObjectEffect magioObj**
296 string **VegetationInstanceItemId**

Detailed Description

Unmasks VSPro instance if necessary (not ignited).

Magio.MagioObjectEffect.VFXProps Struct Reference

Magio.MagioObjectEffect.VFXPropsMagio.MagioObjectEffect.VFXPropsPublic Attributes

297 string **name**
298 VFXParameterType **type**
299 AnimationCurve **animationCurveValue**
300 bool **boolValue**
301 float **floatValue**
302 Gradient **gradientValue**
303 int **intValue**
304 Matrix4x4 **matrixValue**
305 Mesh **meshValue**
306 SkinnedMeshRenderer **skinnedMeshRendererValue**
307 Texture **textureValue**
308 uint **uintValue**
309 Vector2 **vector2Value**
310 Vector3 **vector3Value**
311 Vector4 **vector4Value**
312 Color **colorValue**

Magio.WindRetrieve Class Reference

Magio.WindRetrieveMagio.WindRetrieve
Used to retrieve global wind.
Inherits MonoBehaviour.

Public Member Functions

313 bool **OnUse** ()
314 Vector3 **GetCurrentWindVelocity** ()
    Gets current global wind velocity (TVE or WINDZONE)

Detailed Description

Used to retrieve global wind.

Member Function Documentation

GetCurrentWindVelocity:Magio.WindRetrieveMagio.WindRetrieve:GetCurrentWindVelocityVector3 Magio.WindRetrieve.GetCurrentWindVelocity ()

Gets current global wind velocity (TVE or WINDZONE)

Returns
    Wind velocity

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