Dynamic Nature – Starter

Dynamic Nature Starter : https://www.assetstore.unity3d.com/#!/content/79388?aid=1011lGkb

Pack contain few aspects like:

- Tools: which allows you to paint via vertex colors on ice materials
- Shaders: to change your scene into winter out of the box
- 3d Assets: to create nice environment like frozen river or meadow
- Scripts: to manage snow amount
- HD SRP ported wind into Unity 2017 and 2018, 2018 LW SRP

To switch everything to SRP support simply import Unity package inside this pack which will replace shader and materials to SRP versions.

At almost every scene there is Snow System or Snow Manager object which is used to refresh manage snow at the scene.

In all our shaders we use compressed maps for Ambient Occlusion, Smoothness, Metallic. This save gpu and ram usage. Our basic format is: Metallic (R) Ambient Occlusion (G) Smoothness (A). All maps must have check – Linear, because it's data not texture. This will avoid mixing R-G-B layers in compressed file which normally create color. This format is also 1:1 in Unity standard shader, the difference is that you have to put same texture in different inputs at standard shader UI.

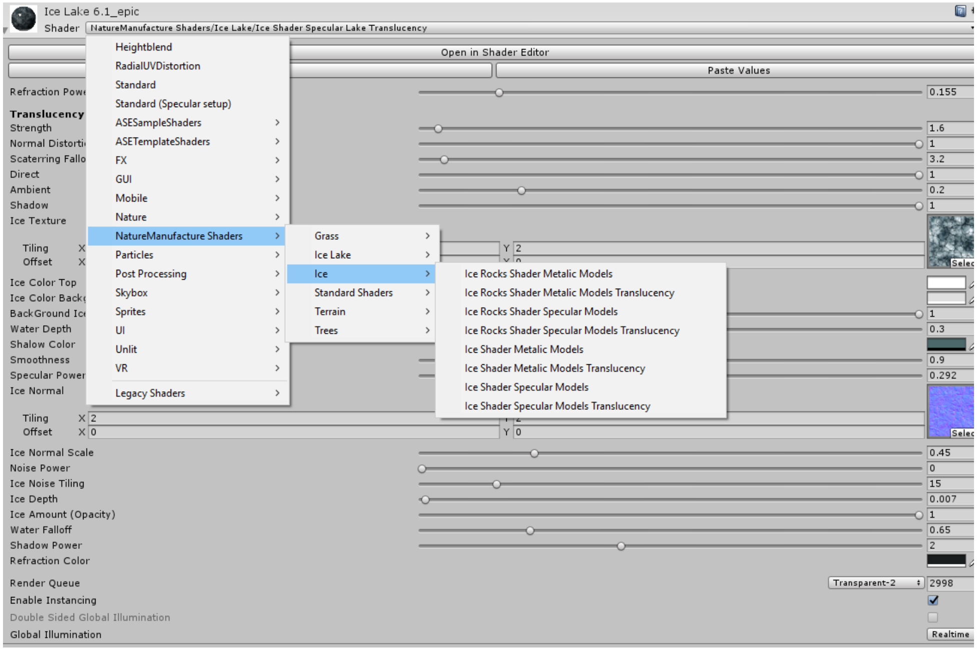
Shaders

Pack contain many shaders like :

- Ice
  - Ice rocks shader with snow cover on the top
  - Ice lake shaders with transparent and without
  - Solid ice shaders
- Snow Cover Solid Shaders
  - Standard Metallic and Specular
  - UV Free
- Foliage Shaders with snow cover and seasons support:
  - Cross
  - Leaves
  - Bark
  - Grass

Ice Shaders

They basically behave like water but with 2 layers which gives them feeling of depth. You could find here 2 grand types of shaders: solid materials and lakes. All shaders have also translucency shader variants which gives cool highlight effect. All shaders are similar, they use same values and could be switched to metallic, spec, translucency versions without any setup losses.


Heightblend
RadialUVDistortion
Standard
Standard (Specular setup)
ASESampleShaders
ASETemplateShaders
FX
GUI
Mobile
Nature
NatureManufacture Shaders
Particles
Post Processing
Skybox
Sprites
UI
Unlit
VR
Legacy Shaders
Grass
Ice Lake
Ice
Standard Shaders
Terrain
Trees
Ice Rocks Shader Metalic Models
Ice Rocks Shader Metalic Models Translucency
Ice Rocks Shader Specular Models
Ice Rocks Shader Specular Models Translucency
Ice Shader Metalic Models
Ice Shader Metalic Models Translucency
Ice Shader Specular Models
Ice Shader Specular Models Translucency
Open in Shader Editor
Paste Values
Select
Select

Ice Lake 6.1_epic
Shader NatureManufacture Shaders/Ice Lake/Ice Shader Specular Lake Translucency

Refraction Powe 0.155

Translucency
Strength 1.6
Normal Distorti 1
Scaterring Fallo 3.2
Direct 1
Ambient 0.2
Shadow 1
Ice Texture
Tiling X Y 2
Offset X Y 0
Ice Color Top
Ice Color Back
BackGround Ic 1
Water Depth 0.3
Shalow Color
Smoothness 0.9
Specular Power 0.292
Ice Normal
Tiling X 2
Offset X 0 Y 0
Ice Normal Scale 0.45
Noise Power 0
Ice Noise Tiling 15
Ice Depth 0.007
Ice Amount (Opacity) 1
Water Falloff 0.65
Shadow Power 2
Refraction Color

Render Queue Transparent-2 2998
Enable Instancing ☑
Double Sided Global Illumination □
Global Illumination Realtime

We setup only translucent materials in our project just because to not creating about 600 materials. You could easily switch this in material property and chose best version for you. Note that translucent shaders are rendered in forward rendered path.

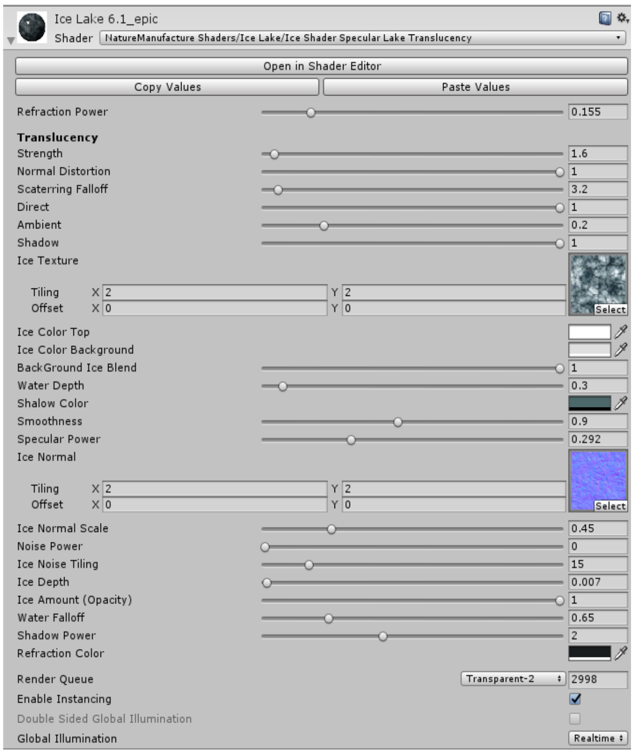
Lake Shader , we made 2 types:

- **Transparent** which doesn't support shadows because of engine limitations, however there is a fake refracted shadow but it's not so accurate.

- **Non-Transparent** with fake blended shore line made via vertex color snow cover.

Material values are pretty simple:

- Translucency strength, normal distortion, scattering, direct, ambient shadows are used to control whole highlight in translucency shading.
- Water Depth and Waterfalloff could control transparency and water shore hardness
- Ice top and background colors manage the visibility and color in ice depth layers.
- Ice depth, noise and it's tilling is used to control depth and mix, make noises. Proper setup destroys tiling in material.
- Ice Amount is used to control ice opacity, useful if you want to remove its cover to show water under the ice.
- Shadow power will manage fake refracted shadow power.



Ice Lake 6.1_epic
Shader NatureManufacture Shaders/Ice Lake/Ice Shader Specular Lake Translucency

Refraction Power 0.155

Translucency
Strength 1.6
Normal Distortion 1
Scaterring Falloff 3.2
Direct 1
Ambient 0.2
Shadow 1
Ice Texture
Tiling X 2 Y 2
Offset X 0 Y 0
Ice Color Top
Ice Color Background
BackGround Ice Blend 1
Water Depth 0.3
Shalow Color
Smoothness 0.9
Specular Power 0.292
Ice Normal
Tiling X 2 Y 2
Offset X 0 Y 0
Ice Normal Scale 0.45
Noise Power 0
Ice Noise Tiling 15
Ice Depth 0.007
Ice Amount (Opacity) 1
Water Falloff 0.65
Shadow Power 2
Refraction Color

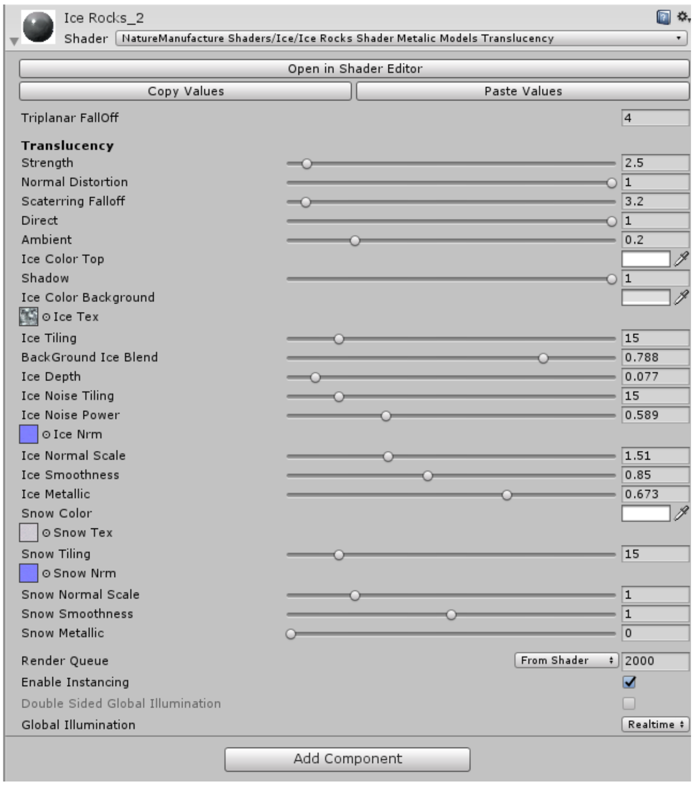
Render Queue Transparent-2 2998
Enable Instancing ☑
Double Sided Global Illumination ☐
Global Illumination Realtime

Solid model ice shaders setup is pretty the same but it doesn't have functions related to water transparency.

Ice rock shader is pretty specific.

Beside all ice values which are common with other ice shader it's triplanar. This means that it will connect models seamlessly, also with proper tiling could blend top layer with terrain. Such shading is disconnected from model UV so you could make very simple or complicated mesh without care about UV and it will be autocovered by ice and snow without problems but…. You have to remember to keep proper normal vectors at your models. Simply set same tiling as in terrain, so snow or other cover will be continue terrain texture. If terrain have tiling = 15, set same tiling on snow tiling value. Make sure that terrain is on 0, 0, 0 point, because uv free shaders start texture from 0 ,0 ,0. If terrain will have offset, same offset will show on texture.

This shader is cool in combination of ice lake shaders so it will generate another depth in the river, in places where rocks/floe hit or are under the lake/river surface. Check our frozen river demo for more info.



Ice Rocks_2
Shader NatureManufacture Shaders/Ice/Ice Rocks Shader Metalic Models Translucency

Triplanar FallOff 4

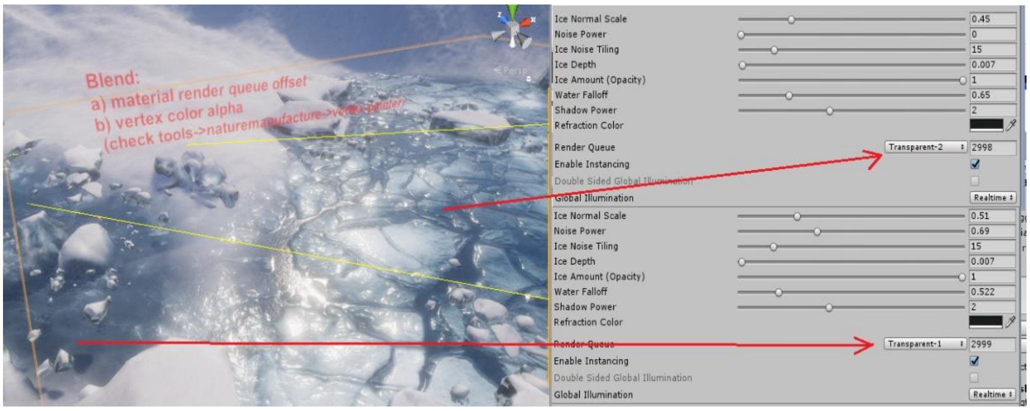
Translucency
Strength 2.5
Normal Distortion 1
Scaterring Falloff 3.2
Direct 1
Ambient 0.2
Ice Color Top
Shadow 1
Ice Color Background
⊙ Ice Tex
Ice Tiling 15
BackGround Ice Blend 0.788
Ice Depth 0.077
Ice Noise Tiling 15
Ice Noise Power 0.589
⊙ Ice Nrm
Ice Normal Scale 1.51
Ice Smoothness 0.85
Ice Metallic 0.673
Snow Color
⊙ Snow Tex
Snow Tiling 15
⊙ Snow Nrm
Snow Normal Scale 1
Snow Smoothness 1
Snow Metallic 0

Render Queue From Shader 2000
Enable Instancing ☑
Double Sided Global Illumination ☐
Global Illumination Realtime

Lake/Rivers surfaces connection

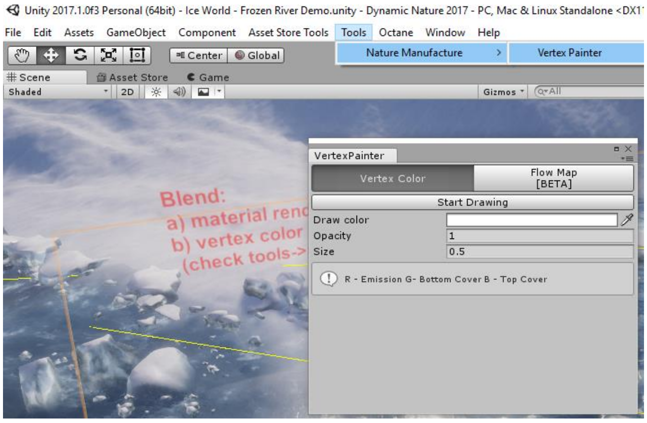
During connection of 2 water surfaces remember to put queue one over another like here.

This will avoid Z fighting between transparent surfaces


Blend:
a) material render queue offset
b) vertex color alpha
(check tools->naturemanufacture->vertex painter)

Ice Normal Scale		0.45
Noise Power		0
Ice Noise Tiling		15
Ice Depth		0.007
Ice Amount (Opacity)		1
Water Falloff		0.65
Shadow Power		2
Refraction Color		
Render Queue	Transparent-2	2998
Enable Instancing		☑
Double Sided Global Illumination		□
Global Illumination		Realtime
Ice Normal Scale		0.51
Noise Power		0.69
Ice Noise Tiling		15
Ice Depth		0.007
Ice Amount (Opacity)		1
Water Falloff		0.522
Shadow Power		2
Refraction Color		
Render Queue	Transparent-1	2999
Enable Instancing		☑
Double Sided Global Illumination		□
Global Illumination		Realtime

Rest of the blend is made with vertex color alpha via our vertex color painter. Simply set vertex alpha to value= 0 and paint over incoming surface so it will become transparent at connection area.


Unity 2017.1.0f3 Personal (64bit) - Ice World - Frozen River Demo.unity - Dynamic Nature 2017 - PC, Mac & Linux Standalone <DX1

Tools > Nature Manufacture > Vertex Painter

VertexPainter

Vertex Color | Flow Map [BETA]

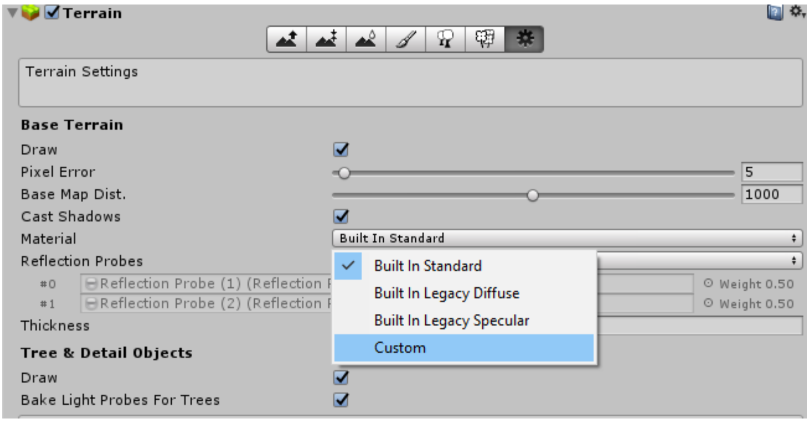
Start Drawing

Draw color
Opacity: 1
Size: 0.5

R - Emission G- Bottom Cover B - Top Cover

Terrain shaders

They work pretty simple. You create material with our shader and drag and drop it into terrain. **They support only 4 texture layers + snow and snow mask.**


☑ Terrain

Terrain Settings

Base Terrain

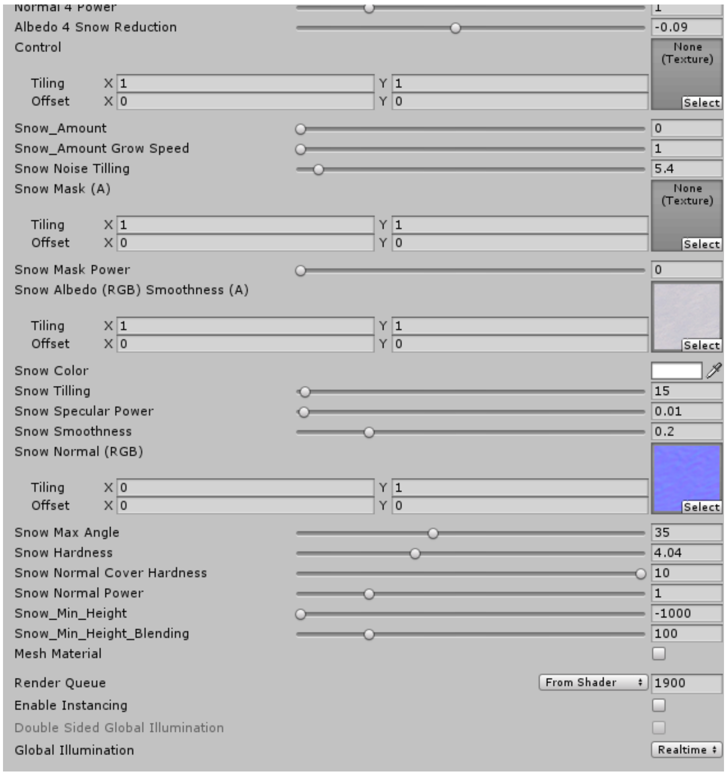
Draw	☑
Pixel Error	5
Base Map Dist.	1000
Cast Shadows	☑
Material	Built In Standard
Reflection Probes	
#0 Reflection Probe (1) (Reflection	Weight 0.50
#1 Reflection Probe (2) (Reflection	Weight 0.50
Thickness	

Tree & Detail Objects

Draw	☑
Bake Light Probes For Trees	☑

All splats are taken from terrain automatically. For non-terrain objects like meshes you simply have to fill it by textures and control texture manually and check – "Mesh Material" checkbox at the bottom of material properties. It's necessary to get proper normal rendering. Note that UV free shaders with triplanar and without have tiling controlled manually from material properties too.

Snow must get setup manually at material instead of other texture properties which are taken from terrain.



Normal 4 Power		1
Albedo 4 Snow Reduction		-0.09
Control		None (Texture) Select
Tiling	X 1	Y 1
Offset	X 0	Y 0
Snow_Amount		0
Snow_Amount Grow Speed		1
Snow Noise Tilling		5.4
Snow Mask (A)		None (Texture) Select
Tiling	X 1	Y 1
Offset	X 0	Y 0
Snow Mask Power		0
Snow Albedo (RGB) Smoothness (A)		Select
Tiling	X 1	Y 1
Offset	X 0	Y 0
Snow Color		
Snow Tilling		15
Snow Specular Power		0.01
Snow Smoothness		0.2
Snow Normal (RGB)		Select
Tiling	X 0	Y 1
Offset	X 0	Y 0
Snow Max Angle		35
Snow Hardness		4.04
Snow Normal Cover Hardness		10
Snow Normal Power		1
Snow_Min_Height		-1000
Snow_Min_Height_Blending		100
Mesh Material		□
Render Queue	From Shader	1900
Enable Instancing		□
Double Sided Global Illumination		□
Global Illumination		Realtime

- Snow cover is based on normal maps that's why we separated normal intensity only for the purpose of snow cover as the additional parameter.

- **Snow Amount** will put snow on your terrain surface

- **Snow Amount Grow Speed** is used to sync terrain snow growing with other surfaces like grass or other objects

- **Snow Normal Cover Hardness** – multiply normal power for snow surface, bigger contrast gives nice effects

- **Snow Max Angle** and its hardness manage how snow behave on slopes.

- **Snow Min height** and its blend will cut snow under terrain heights so you could put it only on the top of the mountain

- **Snow Reduction** slider by it so you could remove or reduce snow amount on roads etc.

- All **texture tilings** beside uv free shaders are managed by unity terrain

Grass shaders

- By unity terrain and our "WavingGrass" and "WavingGrassBillboard" shaders,

  They basically overwrite unity terrain grass shaders. They work out of the box with "snow manager" script which manage their snow growing speed, max amount of snow that they could get etc.

- By our custom shaders which support also vegetation studio system and instantiated indirect

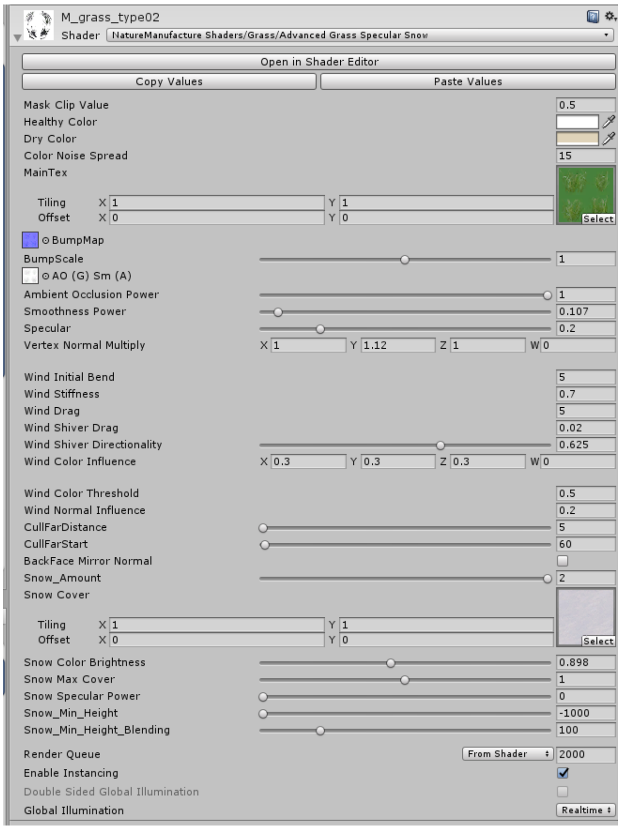
  This shaders are advanced and prepared for systems that could handle custom shader inputs. They support normalmaps, ao ported HD SRP wind into unity 2017, 2018, 2018 LW SRP.

We will focus on our custom shaders because they even could fix prepared models for grass rendering if artist forgot to do that. There are 3 shaders with snow variants:

- Light - only albedo
- Specular - albedo, ao, normal, spec slider
- Standard - albedo ao normal metallic slider

You could switch between them without any problems and data loss.
All this shaders have HD SRP wind setup which works only when our Wind Prefab is at the scene.

Beside all standard setup values like for every PBR model there are few additional things like:



```
M_grass_type02
Shader  NatureManufacture Shaders/Grass/Advanced Grass Specular Snow
Open in Shader Editor
Copy Values                 Paste Values
Mask Clip Value                                  0.5
Healthy Color
Dry Color
Color Noise Spread                               15
MainTex
  Tiling   X 1               Y 1
  Offset   X 0               Y 0                 Select
BumpMap
BumpScale                                        1
AO (G) Sm (A)
Ambient Occlusion Power                          1
Smoothness Power                                 0.107
Specular                                         0.2
Vertex Normal Multiply     X 1   Y 1.12   Z 1    W 0

Wind Initial Bend                                5
Wind Stiffness                                   0.7
Wind Drag                                        5
Wind Shiver Drag                                 0.02
Wind Shiver Directionality                       0.625
Wind Color Influence       X 0.3 Y 0.3    Z 0.3  W 0

Wind Color Threshold                             0.5
Wind Normal Influence                            0.2
CullFarDistance                                  5
CullFarStart                                     60
BackFace Mirror Normal                           □
Snow_Amount                                      2
Snow Cover
  Tiling   X 1               Y 1
  Offset   X 0               Y 0                 Select
Snow Color Brightness                            0.898
Snow Max Cover                                   1
Snow Specular Power                              0
Snow_Min_Height                                  -1000
Snow_Min_Height_Blending                         100

Render Queue                       From Shader   2000
Enable Instancing                                ☑
Double Sided Global Illumination                 □
Global Illumination                              Realtime
```

- **Healthy and Dry** colors will mix colors over grass by **Color Noise Spread**. This breaks recurrence of objects.

- **Vertex Normal Multiply** – You could change model normal directions to fix rendering and snow cover if it's necessary

- **Wind Color Influence and it's threshold** – wind could change color of the grass object, small changes gives cool effect of wind waves.

- **Wind Normal Influence** – wind could change normal directions, this also gives effect of wind waves but mostly related to lighting (visible when sun angle is low)

- **Wind setup** rather matters of user play because it's specific for objects size, type and alpha vertex color on mesh. Basically shiver is used for noise behave (keep it low), rest is related to size of grass bending.

- **Cull Far Distance and Start** will cut/blend grass in far distance, so it will show up with nice blend.

- **BackFace Mirror Normal** – it changes normally in backfaces to become mirrored, it sometimes helps in snow cover, light render over the foliage.

- **Snow Color Brightness** is used to adjust object brightness after it become covered by snow. Useful for image effects.

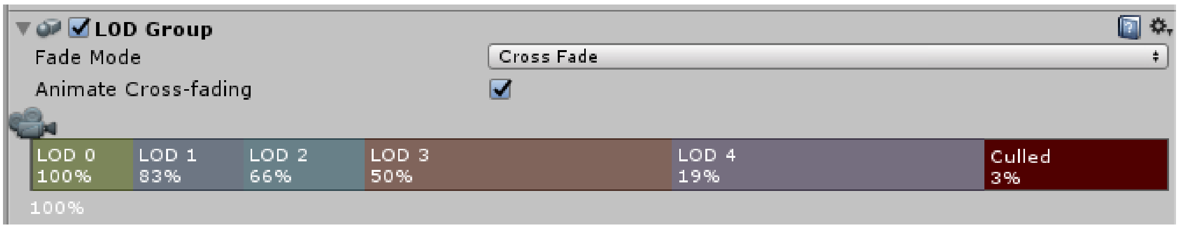
- **Snow Max cover** will cut snow growing on specific level, sometimes we don't want grass to become totally covered by snow, for example big grass/plant objects.

Trees shaders

Tree shaders are able to change seasons and become covered by snow. It works on leaves material, bark and cross models which are used as last LOD in our assets.

In our ported **wind system** bark and leaves at trees should have same wind values, if this is not met then branches and bark, leaves will be disconnected by wind phase. All data for wind in our foliage is on vertex alpha channel. Check our trees in Blender if you would like to build more of them on our technology for your game.

All shaders support Cross Fade so you could turn it on in prefabs. You have to check animate cross-fading in cross fade model like in image below.



☑ LOD Group
Fade Mode: Cross Fade
Animate Cross-fading: ☑

Leaves shaders - We will write few words about most advanced leaves shader called seasons as rest is just cheaper and simplified version

- **Season** - this slider controls changes into autumn or winter albedo.
- **Snow Brightness Reduction** is used to adjust object brightness after it become covered by snow. Useful for image effects
- **Snow Angle Overlay** will fix snow on backfaces as shader is doublesided.
- **Healthy and Dry** colors will mix colors over grass by **Color Noise Spread**. This breaks recurrence of objects.
- **Albedo Autumn** will become visible when season slider will be in value greater than 2.
- **Wind setup** is rather matter of user play because it's specific for objects size, type and alpha vertex color on mesh. Basically shiver is used for noise behave (keep it low), rest is related to size of grass bending.

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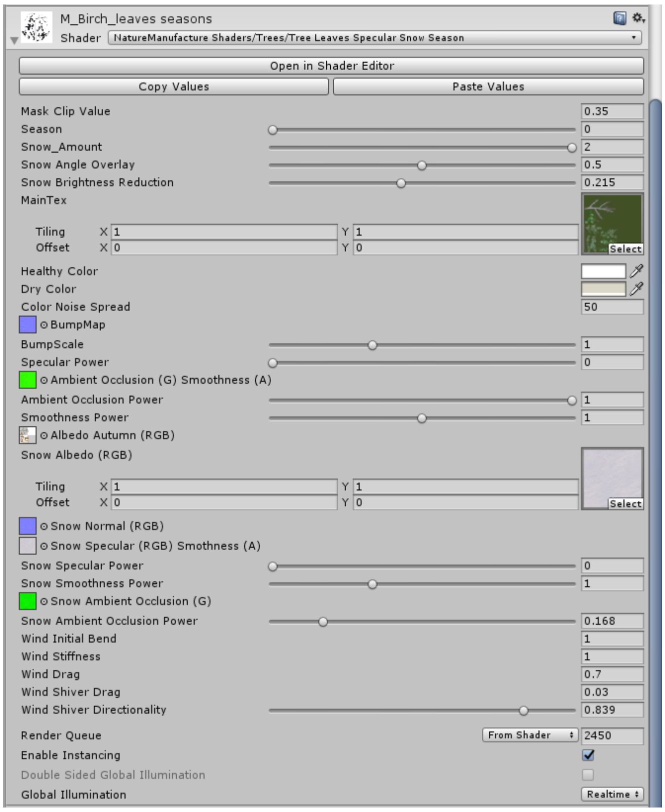
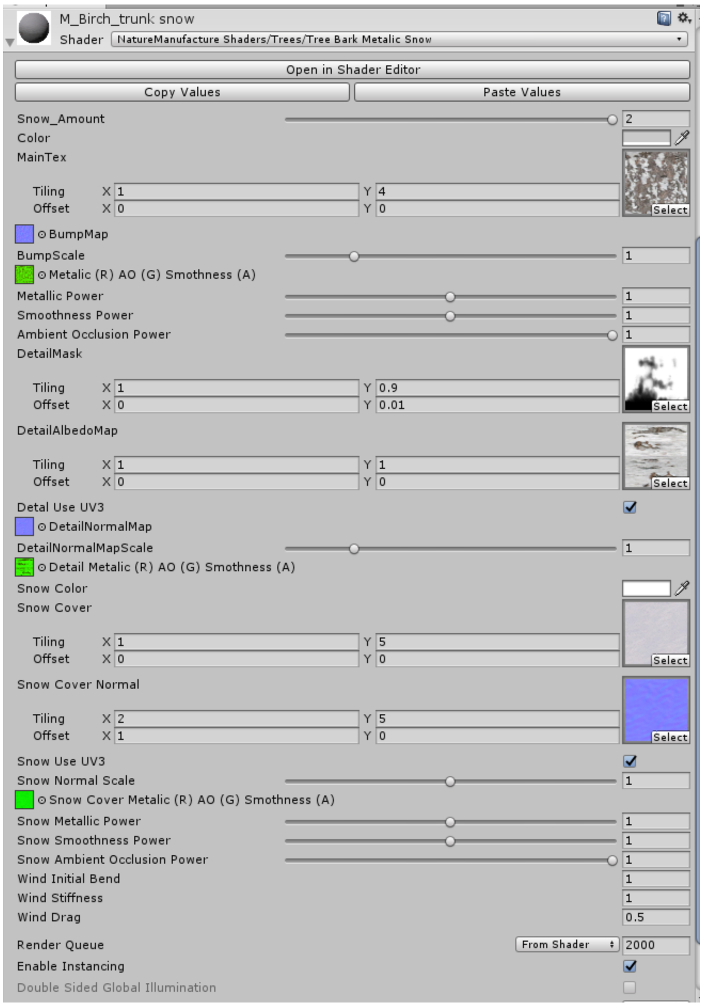


M_Birch_leaves seasons
Shader: NatureManufacture Shaders/Trees/Tree Leaves Specular Snow Season

Mask Clip Value: 0.35
Season: 0
Snow_Amount: 2
Snow Angle Overlay: 0.5
Snow Brightness Reduction: 0.215
MainTex
Tiling X 1 Y 1
Offset X 0 Y 0
Healthy Color
Dry Color
Color Noise Spread: 50
BumpMap
BumpScale: 1
Specular Power: 0
Ambient Occlusion (G) Smoothness (A)
Ambient Occlusion Power: 1
Smoothness Power: 1
Albedo Autumn (RGB)
Snow Albedo (RGB)
Tiling X 1 Y 1
Offset X 0 Y 0
Snow Normal (RGB)
Snow Specular (RGB) Smothness (A)
Snow Specular Power: 0
Snow Smoothness Power: 1
Snow Ambient Occlusion (G)
Snow Ambient Occlusion Power: 0.168
Wind Initial Bend: 1
Wind Stiffness: 1
Wind Drag: 0.7
Wind Shiver Drag: 0.03
Wind Shiver Directionality: 0.839
Render Queue: From Shader 2450
Enable Instancing: ☑
Double Sided Global Illumination: ☐
Global Illumination: Realtime

Bark shader – This shaders have additional features on uv which gives ability to merge few bark layers without adding additional drawcalls.

- **DetailMask** – is used to create blend between 2 bark types MainTex layer and DetailAlbedo map. DetailMask use UV0. It's single Alpha channel texture. Check our texture setup for this masks.
- **Detail Use UV3** - is used to move additional bark layer into UV3. In such way UV3 could be tiled many times, where Maintex is one per whole tree. This will generate situation where for roots and trunk on the bottom we have 1 texture without tiling. We blend it by mask with highly tiled bottom bark texture which is also used for branches.
- **Snow Use UV3** – as we could keep MainTex as non-tiled at uv0 we rather like to use tilled snow texture over the objects, so that's why it could use UV3 which was used for tilled bark.
- **UV3 –** you could set tiling of the objects using UV3 on normalmap tiling and offset. We use albedo uv for uv0 and normalmap uv for uv3 (small trick).

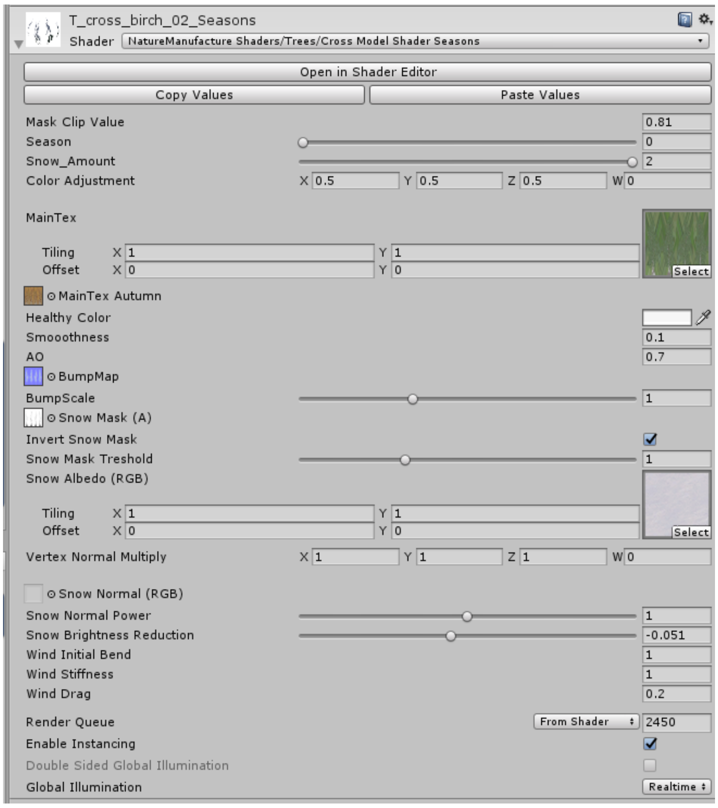


M_Birch_trunk snow
Shader: NatureManufacture Shaders/Trees/Tree Bark Metalic Snow

Snow_Amount: 2
Color
MainTex
Tiling X 1 Y 4
Offset X 0 Y 0
BumpMap
BumpScale: 1
Metalic (R) AO (G) Smothness (A)
Metallic Power: 1
Smoothness Power: 1
Ambient Occlusion Power: 1
DetailMask
Tiling X 1 Y 0.9
Offset X 0 Y 0.01
DetailAlbedoMap
Tiling X 1 Y 1
Offset X 0 Y 0
Detal Use UV3: ☑
DetailNormalMap
DetailNormalMapScale: 1
Detail Metalic (R) AO (G) Smothness (A)
Snow Color
Snow Cover
Tiling X 1 Y 5
Offset X 0 Y 0
Snow Cover Normal
Tiling X 2 Y 5
Offset X 1 Y 0
Snow Use UV3: ☑
Snow Normal Scale: 1
Snow Cover Metalic (R) AO (G) Smothness (A)
Snow Metallic Power: 1
Snow Smoothness Power: 1
Snow Ambient Occlusion Power: 1
Wind Initial Bend: 1
Wind Stiffness: 1
Wind Drag: 0.5
Render Queue: From Shader 2000
Enable Instancing: ☑
Double Sided Global Illumination: ☐

Cross shader - we use cross as last LOD because they are much cheaper than billboards (no camera angle refreshing) and in most cases they are good enough as last LOD. It also gives us more control over their normals and snow cover. The cool thing about this crosses it that they support wind so there will be no strange switch.

There is not much to say about this shader beside that you could adjust colors by **Color Adjustment**, or **Snow Mask** to exclude bark and prevent it to become solid white with snow cover. Make sure that your own cross models have spherical normal, so they will render properly and become covered by snow.



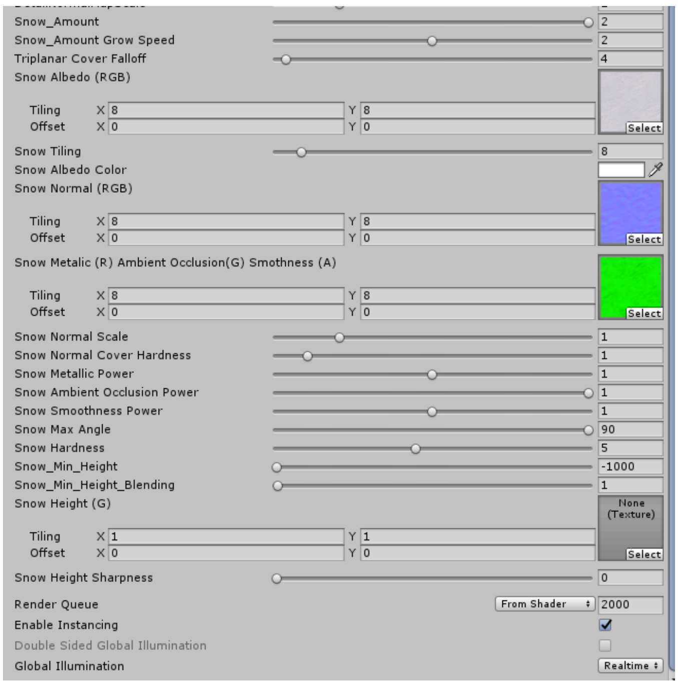
T_cross_birch_02_Seasons
Shader NatureManufacture Shaders/Trees/Cross Model Shader Seasons

Mask Clip Value 0.81
Season 0
Snow_Amount 2
Color Adjustment X 0.5 Y 0.5 Z 0.5 W 0
MainTex
Tiling X 1 Y 1
Offset X 0 Y 0
MainTex Autumn
Healthy Color
Smooothness 0.1
AO 0.7
BumpMap
BumpScale 1
Snow Mask (A)
Invert Snow Mask ☑
Snow Mask Treshold 1
Snow Albedo (RGB)
Tiling X 1 Y 1
Offset X 0 Y 0
Vertex Normal Multiply X 1 Y 1 Z 1 W 0
Snow Normal (RGB)
Snow Normal Power 1
Snow Brightness Reduction -0.051
Wind Initial Bend 1
Wind Stiffness 1
Wind Drag 0.2
Render Queue From Shader 2450
Enable Instancing ☑
Double Sided Global Illumination ☐
Global Illumination Realtime

Object shaders

Pack contain also shaders for objects like rocks, houses etc in solid and cutout versions. There are also UV Free variants which are used for big rock structures like caves where we don't want to see connections between separated models. Basically all shaders have standard material options but they also contain extended snow or uv free cover features. We will focus on this values.

- Snow cover is based on normalmaps and surface slope that's we separated normally which is taken for snow cover.
- **Snow Amount** will put snow on your terrain surface
- **Snow Amount Grow Speed** is used to sync terrain snow growing with other surfaces like grass or other objects
- **Snow Normal Cover Hardness** – multiply normal power for snow surface, bigger contrast gives nice effects
- **Snow Max Angle** and it's hardness manage how snow behave on slopes.
- **Snow Min height** and it's blend will cut snow under terrain heights so you could put it only on the top of the mountain
- **Snow Height (G)** – this allows you to heighblend snow cover by heightmap which is on "G" texture chanell. With **Snow Height Sharpness** slider you could control the influence of heightmap on snow cover.



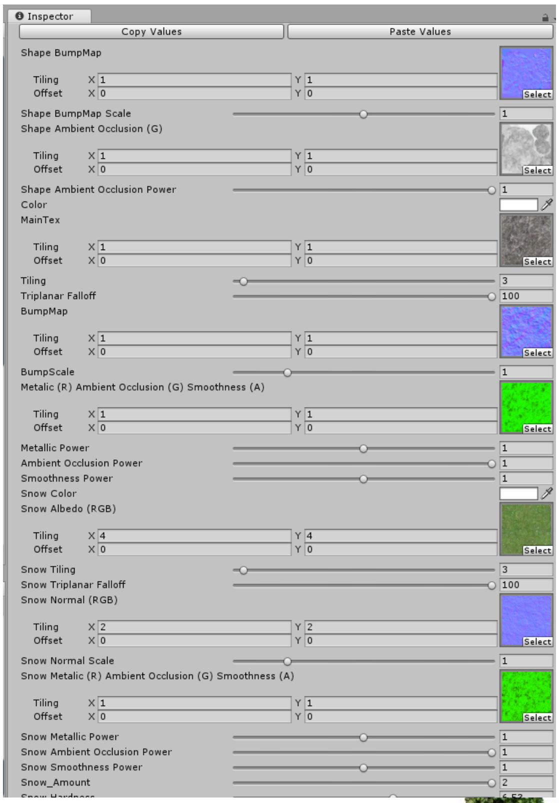
```
Snow_Amount                                   2
Snow_Amount Grow Speed                        2
Triplanar Cover Falloff                       4
Snow Albedo (RGB)
  Tiling   X 8   Y 8
  Offset   X 0   Y 0                          Select
Snow Tiling                                   8
Snow Albedo Color
Snow Normal (RGB)
  Tiling   X 8   Y 8
  Offset   X 0   Y 0                          Select
Snow Metalic (R) Ambient Occlusion(G) Smothness (A)
  Tiling   X 8   Y 8
  Offset   X 0   Y 0                          Select
Snow Normal Scale                             1
Snow Normal Cover Hardness                    1
Snow Metallic Power                           1
Snow Ambient Occlusion Power                  1
Snow Smoothness Power                         1
Snow Max Angle                                90
Snow Hardness                                 5
Snow_Min_Height                               -1000
Snow_Min_Height_Blending                      1
Snow Height (G)                               None (Texture)
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
Snow Height Sharpness                         0
Render Queue                    From Shader   2000
Enable Instancing                             ☑
Double Sided Global Illumination              □
Global Illumination                           Realtime
```

IMPORTANT!!! Our snow cover shader could be used as cover by any surface, not only snow. With proper tiling values and unity terrain started from 0,0,0 you could achieve 1:1 top texture connection on model and terrain.

One of the most interesting shaders is our *UVFree* which could also contain mesh shape data. It could be used to blend rocks with terrain 1:1 or to hide connection between models or structures like caves.

The basic problem with UV shaders is that when you apply them you lose shape character but we added features which will keep everything.

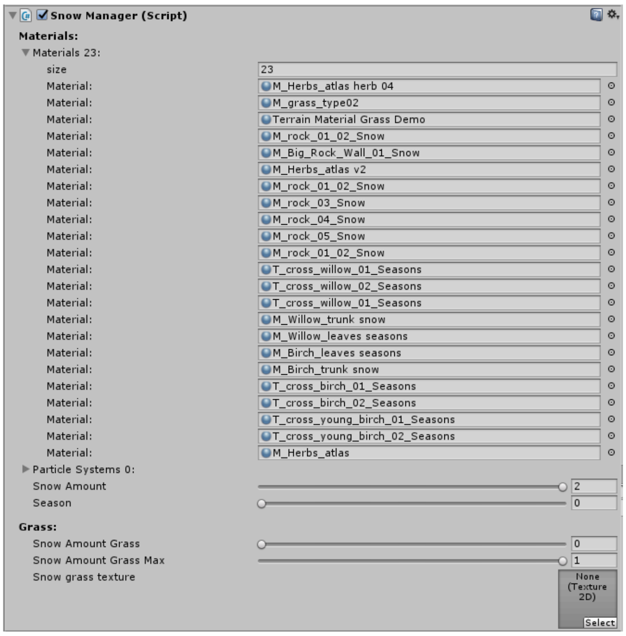
- **Shape maps** – are used to expose mesh shape aspects like normal, ao. This maps are mixed with uvmaps, so you could hold shape character and get triplanar shading of the object. It's really useful for rocks.
- **Tilings** – when this values are equal to unity terrain tilling you could get 1:1 blend between terrain and models. Especially when terrain is also triplanar.
- **TriplanarFalloff** – this value regulate blending between top, bottom, side sides. Bigger values avoid sharp edges but could generate some artefacts. We usually use lower values for sand, snow and small granulate surfaces and higher values for rocks where we care about sharpness of detail and normalmaps .



```
Inspector
Copy Values                      Paste Values
Shape BumpMap
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
Shape BumpMap Scale                           1
Shape Ambient Occlusion (G)
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
Shape Ambient Occlusion Power                 1
Color
MainTex
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
Tiling                                        3
Triplanar Falloff                             100
BumpMap
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
BumpScale                                     1
Metalic (R) Ambient Occlusion (G) Smoothness (A)
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
Metallic Power                                1
Ambient Occlusion Power                       1
Smoothness Power                              1
Snow Color
Snow Albedo (RGB)
  Tiling   X 4   Y 4
  Offset   X 0   Y 0                          Select
Snow Tiling                                   3
Snow Triplanar Falloff                        100
Snow Normal (RGB)
  Tiling   X 2   Y 2
  Offset   X 0   Y 0                          Select
Snow Normal Scale                             1
Snow Metalic (R) Ambient Occlusion (G) Smoothness (A)
  Tiling   X 1   Y 1
  Offset   X 0   Y 0                          Select
Snow Metallic Power                           1
Snow Ambient Occlusion Power                  1
Snow Smoothness Power                         1
Snow_Amount                                   2
```

Snow and season system

It’s totally simple and easy in use. It control snow amount, season values in attached materials. Simply create empty gameobject at the scene and add snow manager script.



Snow Manager (Script)

Materials:

Materials 23:

size	23
Material:	M_Herbs_atlas herb 04
Material:	M_grass_type02
Material:	Terrain Material Grass Demo
Material:	M_rock_01_02_Snow
Material:	M_Big_Rock_Wall_01_Snow
Material:	M_Herbs_atlas v2
Material:	M_rock_01_02_Snow
Material:	M_rock_03_Snow
Material:	M_rock_04_Snow
Material:	M_rock_05_Snow
Material:	M_rock_01_02_Snow
Material:	T_cross_willow_01_Seasons
Material:	T_cross_willow_02_Seasons
Material:	T_cross_willow_01_Seasons
Material:	M_Willow_trunk snow
Material:	M_Willow_leaves seasons
Material:	M_Birch_leaves seasons
Material:	M_Birch_trunk snow
Material:	T_cross_birch_01_Seasons
Material:	T_cross_birch_02_Seasons
Material:	T_cross_young_birch_01_Seasons
Material:	T_cross_young_birch_02_Seasons
Material:	M_Herbs_atlas

Particle Systems 0:

Snow Amount	2
Season	0

Grass:

Snow Amount Grass	0
Snow Amount Grass Max	1
Snow grass texture	None (Texture 2D)

- **Materials** - You will have to attach all materials on which you want to refresh snow and season values.

- **Particle system -** is place where you could add particles which will be activated by snow amount
  Season and snow Amount – these sliders control snow and season values at attached materials in materials list.

- **Snow Amount Grass with Max value** – these 2 sliders control amount of grass at build in unity grass shaders overwritten by our “WavingGrass” and “WavingGrassBillboard” shaders. You have to fill this by snow grass texture and adjust values to get best snow effect.