构成

MAGICA CLOTH PHYSICS ENGINE MAGICA CLOTH 物理引擎

MagicaCloth's physics is controlled by its own physics engine, completely separate from Unity's physics engine.
Therefore it does not interfere with Unity's physical system at all.
MagicaCloth的物理是由它自己的物理引擎控制的, 完全独立于Unity的物理引擎.
因此它完全不会干扰Unity的物理系统.

CLOTH TEAM 布料分组

The following four components that perform physical control are called "cloth team".
以下四个进行物理控制的组成部分称为"布料分组".

- MagicaBoneCloth Magica骨骼布料
- MagicaBoneSpring Magica骨骼弹簧
- MagicaMeshCloth Magica网格布料
- MagicaMeshSpring Magica网格弹簧

In MagicaCloth, physics operations are performed independently for each cloth team.
Also, each cloth team does not interfere with each other.
在magicaccloth中, 每个布料分组会独立执行物理操作.
也就是说, 每个布料分组之间不会相互干扰.

DEFORMER 变形器

The function to deform the mesh is called "deformer".
MagicaCloth attaches this deformer to the renderer and performs vertex deformation of the mesh.
变形网格的函数称为"变形器".
MagicaCloth 附加这个变形器到网格来渲染和执行顶点变形.

Deformers are a required component for MeshCloth / MeshSpring.
变形器是MeshCloth / MeshSpring的必备组件.

PARTICLE 粒子

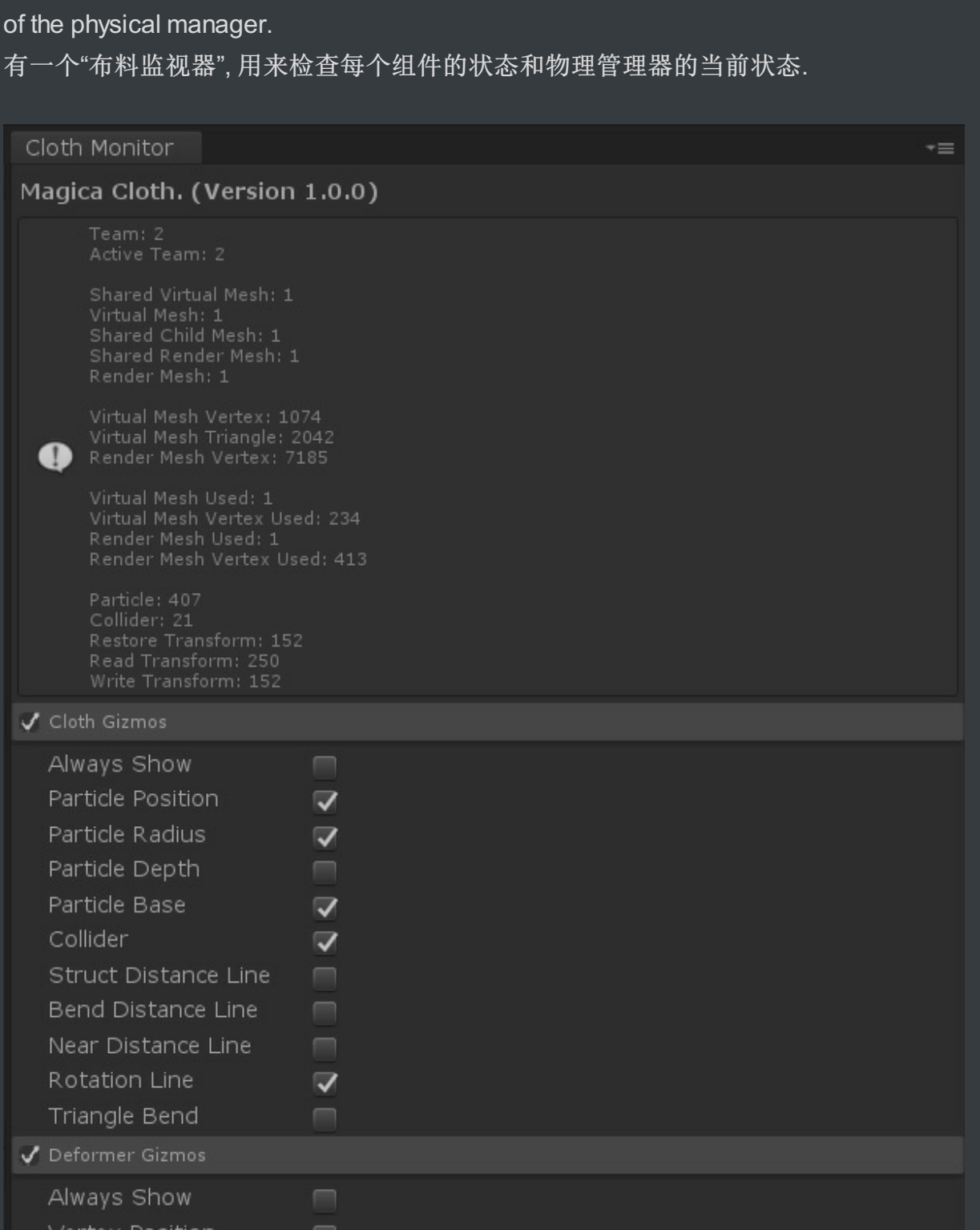
编辑粒子说明 Particle Edit – Magica Soft

Each point controlled by the physics engine is called a particle.
物理引擎控制的每一个点都称为一个粒子.

CLOTH MONITOR 布料监视器

布料监视器说明 Cloth Monitor – Magica Soft

There is a "cloth monitor" to check the status of each component and the current status of the physical manager.
有一个"布料监视器", 用来检查每个组件的状态和物理管理器的当前状态.



The cloth monitor allows you to display the gizmo status of the cloth team and deformer in the scene view.
This is an essential tool for adjusting your MagicaCloth.
布料监视器可以在场景视图中查看布料团队和变形器的小装置状态.
这是调整 MagicaCloth 的必要工具.

To start, select [Tools/Magica Cloth/Cloth Monitor] from the menu or press the [Open Cloth Monitor] button for each component.
想启动,从菜单中选择[[Tools/Magica Cloth/Cloth Monitor],或按下每个组件的[Open Cloth Monitor]按钮.

组件

组件说明 System Overview – Magica Soft

MagicaCloth is made up of the following components.
MagicaCloth 由以下组件组成.

Name 名称	Icon 图标	Description 描述
MagicaPhysicsManager Magica物理管理器 Physics Manager – Magica Soft		Manager that controls the entire system. Controls how physics operations are updated. One is required for each scene. 控制整个系统的管理器.控制如何更新物理操作.每个场景都需要一个.
MagicaBoneCloth Magica骨骼布料 Bone Cloth – Magica Soft		Bone Cloth. Controls bones (Transform) to perform Cloth simulation. Ideal for shaking hair that already contains bones. The load is light. 骨骼布料.控制骨头(Transform变换)进行布料模拟.非常适合做头发(骨骼)甩动. *负荷低.*
MagicaBoneSpring Magica骨骼弹簧 Bone Spring – Magica Soft		Bone spring. Performs a spring simulation by controlling the bone (Transform). Ideal for breast shaking with bones. The load is very light. 骨骼弹簧.通过控制骨骼(Transform变换)执行弹簧模拟.非常适合做胸部(骨骼)晃动. *负荷非常低.*
MagicaRenderDeformer Magica渲染变形器 Render Deformer – Magica Soft		Render deformer. Component for deforming the mesh of the model. Required when using MeshCloth / MeshSpring. The load is heavy. 渲染变形器.用于变形模型网格的组件.使用MeshCloth / MeshSpring 时的必须. *负荷高.*
MagicaVirtualDeformer Magica虚拟变形器 Virtual Deformer – Magica Soft		Virtual deformer. Vertex reduction is performed by combining multiple render deformers, and reconstructed as one virtual mesh. In MeshCloth / MeshSpring, this virtual deformer is deformed, and the result is reflected in each render deformer to deform the mesh. Required when using MeshCloth / MeshSpring. The load is heavy. 虚拟变形器.通过组合多个渲染变形器进行顶点简化, 重构为一个虚拟网格.在MeshCloth / MeshSpring中, 虚拟变形器完成实际变形, 并把结果反映在每个渲染变形器中来让网格变形.使用 MeshCloth / MeshSpring 时的必须. *负荷高.*
MagicaMeshCloth Magica网格布料 Mesh Cloth – Magica Soft		Mesh cloth. Perform cloth simulation on mesh vertices. Because it is a vertex unit, fine control that Bone Cloth can not do is possible. Ideal for controlling skirts. Works with virtual deformers. The load is heavy. 网格布料.对网格顶点进行布料模拟.因为它基于顶点, 可以做骨骼布料做不到的精细控制.非常适合控制裙子.需要虚拟变形器支持. *负荷高.*
MagicaMeshSpring Magica网格弹簧 Mesh Spring – Magica Soft		Mesh spring. Perform spring simulation on mesh vertices. Ideal for breast shaking of meshes without bones. Works with virtual deformers. The load is moderate. 网格弹簧.对网格顶点进行弹簧模拟.适合没有骨骼的胸部网格晃动.需要虚拟变形器支持. *负载中等.*
MagicaSphereCollider Magica球型碰撞体 Sphere Collider – Magica Soft		Sphere collider. Detects spherical physical collisions and prevents particles from entering. 球型碰撞体.检测球形物理碰撞, 防止粒子进入.
MagicaCapsuleCollider MagicaC胶囊型碰撞体 Capsule Collider – Magica Soft		Capsule collider. Detects capsule-type physical collisions and prevents particles from entering. 胶囊型碰撞体.检测胶囊形物理碰撞, 防止粒子进入.
MagicaPlaneCollider Magica平面型碰撞体 Plane Collider – Magica Soft		Plane collider. Detects plate-like physical collisions and prevents particles from entering. plane is treated as a plane at infinity. 平面型碰撞体.检测平面形物理碰撞, 防止粒子进入.平面被视为无穷远处的平面.
Directional Wind 定向风 Directional Wind – Magica Soft		Directional Wind is a wind that affects the whole world. 定向风是一种影响整个世界的风。
Area Wind 区域风 Area Wind – Magica Soft		You can use the Area Wind component to define the wind that occurs only in the specified area of the field. There are box-shaped and spherical-shaped areas, which can be selected by Shape Type. You can also create a blast by combining it with a script or animation. 您可以使用区域风组件来定义只发生在指定区域的风。 有盒形和球形区域,可以通过形状类型进行选择. 您还可以通过将其与脚本或动画结合来创建爆炸.
MagicaAvatar 化身 Avatar – Magica Soft		The Magica Avatar component is an important class that manages various aspects of the character itself. Features will be expanded in future updates. See the "Dress Up Start Guide" for details. Magica Avatar组件是一个重要的类,它管理角色本身的各个方面. 功能将在未来的更新中扩展. 详见 开始装扮指南.
MagicaAvatarParts 化身零件 Avatar Parts – Magica Soft		Magica Avatar Parts manages the parts of the dress up system. For details on the system, see "Dress Up Start Guide". Magica Avatar Parts负责管理装扮系统的各个部分. 详见 开始装扮指南.

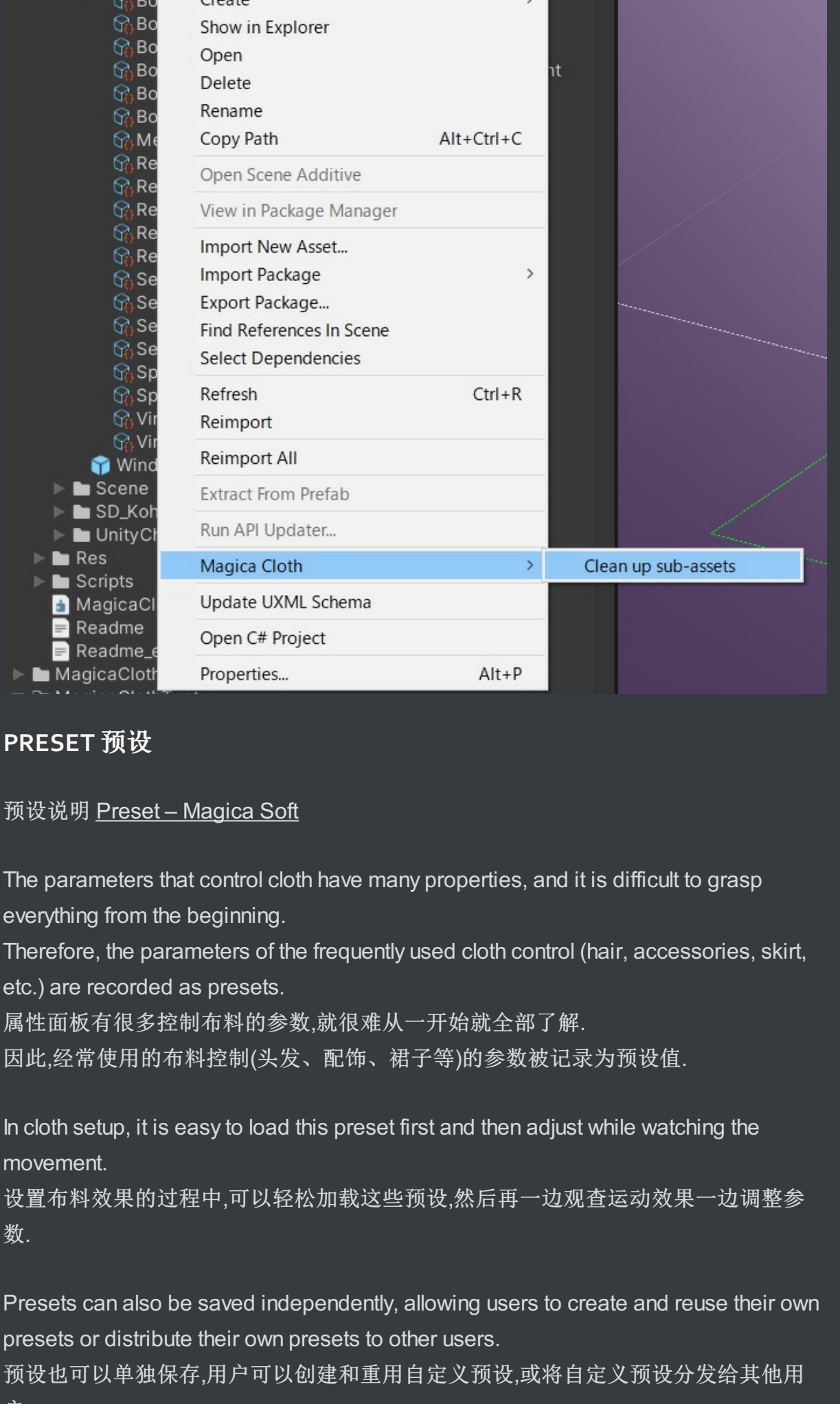
使用

Build Menu 构建菜单

构建菜单 Build Menu – Magica Soft

Cleanup of subassets 清理子资产(清理菜单)

清理子资产 Cleanup of subassets – Magica Soft



PRESET 预设

预设说明 Preset – Magica Soft

The parameters that control cloth have many properties, and it is difficult to grasp everything from the beginning.
Therefore, the parameters of the frequently used cloth control (hair, accessories, skirt, etc.) are recorded as presets.
属性面板有很多控制布料的参数,就很难从一开始就全部了解.
因此,经常使用的布料控制(头发、配饰、裙子等)的参数被记录为预设值.

In cloth setup, it is easy to load this preset first and then adjust while watching the movement.
设置布料效果的过程中,可以轻松加载这些预设,然后再一边观查运动效果一边调整参数.

Presets can also be saved independently, allowing users to create and reuse their own presets or distribute their own presets to other users.
预设也可以单独保存,用户可以创建和重用自定义预设,或将自定义预设分发给其他用户.

Built-in preset files are included in the MagicaCloth/Res/Preset folder.
内置的预设文件包含在 MagicaCloth/Res/Preset 文件夹中.

SAMPLE SCENE 示例场景

Simple sample scenes for each component are provided.
By looking at the contents of the sample scene, you will be able to understand the general movement of each component.
每个组件都提供了简单的示例场景.
查看示例场景的内容,能够使您理解每个组件的基本使用.

The sample scene is in the Exsample/Scene folder.
示例场景在 Exsample/Scene 文件夹中.

Scene Name	Description
BoneClothSample 骨骼布料示例	This is a simple sample of bone cloth. 这是一个简单的骨骼布料示例。
BoneSpringSample 骨骼弹簧示例	A simple sample of a bone spring. 一个简单的骨骼弹簧示例
MeshClothSample 网格布料示例	A simple sample of mesh cloth. Notice that the mesh cloth is linked to RenderDeformer / VirtualDeformer. 网格布料的简单示例.注意,网格布料与 RenderDeformer / VirtualDeformer 相关联.
MeshSpringSample 网格弹簧示例	A simple sample of a mesh spring. 一个简单的网格弹簧示例
UnityChanClothSample Unity酱 布料示例	This is a sample that incorporates BoneCloth / MeshCloth / MeshSpring into Unity-Chan. BoneCloth is used for hair and ribbon control, MeshCloth for skirt control, and MeshSpring for breast swing control. Notice that VirtualDeformer works with multiple RenderDeformers. 这是一个Unity酱的 BoneCloth / MeshCloth / MeshSpring 综合示例. BoneCloth用于头发和丝带控制, MeshCloth用于裙子控制, MeshSpring用于胸部摆动控制. 注意:VirtualDeformer支持了多个RenderDeformers.

The Exsample folder can be deleted because it is not necessary to execute MagicaCloth.
Exsample 文件夹可以被删除,因为执行 MagicaCloth 不需要它.

其他

设置参数

Parameter – Magica Soft

API参考

API – Magica Soft

安装指南

Setup Guide – Magica Soft

CHECK VERSION

You can check the version of MagicaCloth from Tools/Magica Cloth/About menu.
您可以在 Tools/Magica Cloth/About menu 中查看MagicaCloth的版本。