What is 2D Soft Physics?

This is easy-to-use asset, which allows you to create 2d jelly physics objects with only two scripts. So all you need it's to add two scripts on your GameObject:

- SpriteObject
- SoftObject

and choose a sprite to set your jelly-physics object. Also it works with 2D Toolkit.

You can setup Distance, Frequency, DampingRatio, Mass, AngularDrag, LinearDrag, of physics-objects in the Inspector panel.

This works well on Personal and Pro Unity, suitable for Web, Standalone, Android and iOS platforms. And all this takes less then 2 mb on your drive and costs less then your morning coffee.

Quick Start

As mentioned above, to create jelly-physics object, create a new GameObject, add script «SpriteObject», choose a sprite in Inspector window, then add script «SoftObject».

That is all. Now you can try to set different parameters of «SoftObject». For example - set Distance, Frequency and Mass as 0.1, 20, 5 and jelly-object will have other physic behavior!

API Help

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SoftSprite script

SoftSprite script creates and configures image on scene, use MeshFilter.

SoftSprite script has a two parameters:

- **Sprite** - it's «Texture», which used to create a sprite on scene;
- **Scale** - size of Texture.

Also if you need to update your sprite, press the button «Update».

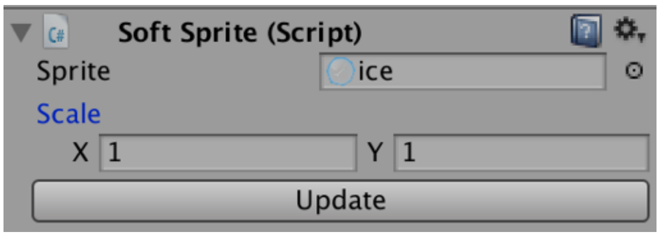
`void Awake()` - cache a components, create or update a MeshFilter;

`private void CreateMesh()` - create a MeshFilter of sprite;

`private void UpdateMesh()` - update a MeshFilter of sprite;

private void UpdateTexture(Material material) - update a material of sprite, argument - material, which sets to mesh;

public void ForceUpdate() - update mesh of sprite.


Soft Sprite (Script)
Sprite: ice
Scale
X 1 Y 1
Update

SoftObject script

SoftObject script creates and configures joints to make jelly-physics effect.

SoftObject script has a few parameters:

- **Distance** - the distance that the spring should attempt to maintain between the objects;
- **Frequency** - at which the spring oscillates while the objects are approaching the separation distance you want (measured in cycles per second): In the range 0 to 1,000,000 - the higher the value, the stiffer the spring;
- **DampingRatio** - the degree to which you want to suppress spring oscillation: In the range 0 to 1, the higher the value, the less movement;
- **Mass** - mass of this object;
- **AngularDrag** - drag coefficient affecting rotational movement;
- **LinearDrag** - drag coefficient affecting positional movement.

Also if you need to update your params, press the button «Update».

void Awake() - cache components, initialize and configure joints;

private void CacheObjects() - cache components;

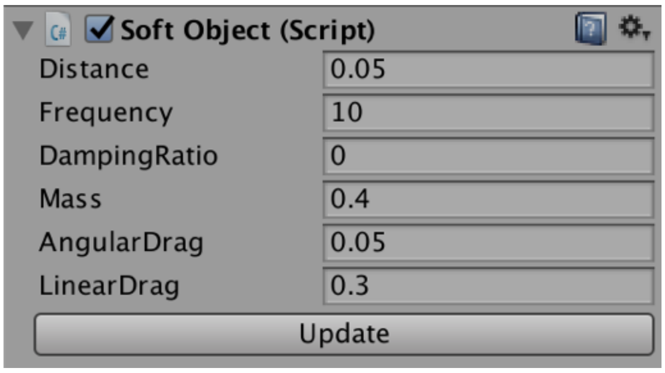
private void Initialize() - initialize and configure joints;

void LateUpdate() - update MeshFilter;

private void DestroyJoints() - destroy joints;

public void ForceUpdate() - delete and create joints and set joints parameters;

public void UpdateParams() - set joints parameters.


Soft Object (Script)

Distance	0.05
Frequency	10
DampingRatio	0
Mass	0.4
AngularDrag	0.05
LinearDrag	0.3

Update