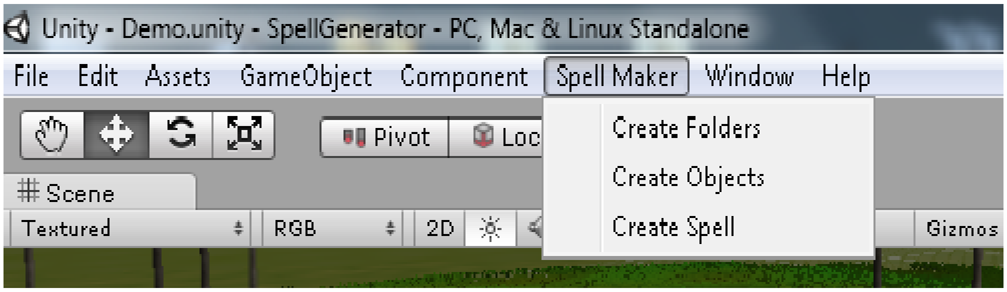
Spell Creator

Firstly we are going to create necessary folders and object.

In the SpellGenerator tab you can see create folders and create objects buttons once clicked the buttons folders and the object will be created.

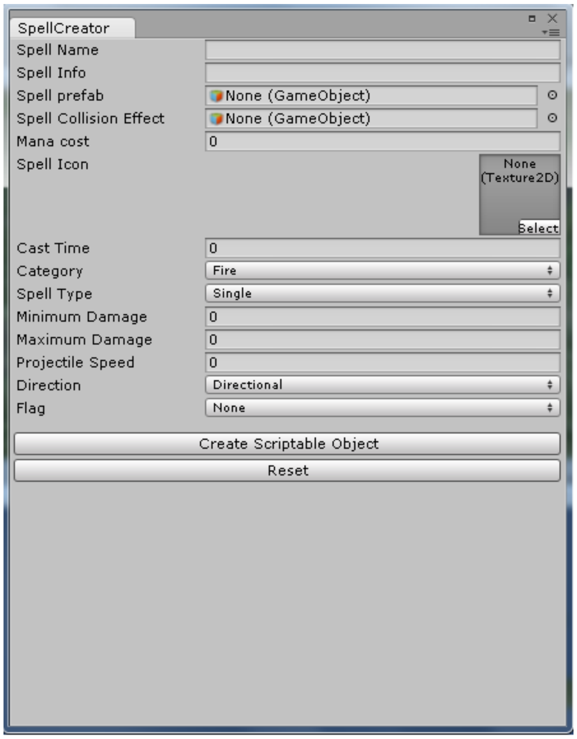


Created Object(Spell Manager)

This object will contain all of our spells in a list.We can reach this list with another script very easily.

Let's make our first spell

Click the create spell button in the Spell Maker tab.Once we click that window will be pop.



Spell Name	
Spell Info	
Spell prefab	None (GameObject)
Spell Collision Effect	None (GameObject)
Mana cost	0
Spell Icon	None (Texture2D)
Cast Time	0
Category	Fire
Spell Type	Single
Minimum Damage	0
Maximum Damage	0
Projectile Speed	0
Direction	Directional
Flag	None

Spell Category

I added two category for spells you can add your own very easily.Just open the Spell.cs script and find enum SpellCategory and write your own category.

Spell Type

- Single : spell that contains a projectile like fireball, frostball, etc...
- Buff
- Aoe(Area of effect)

You can add your own spell type like we did in de spell category.

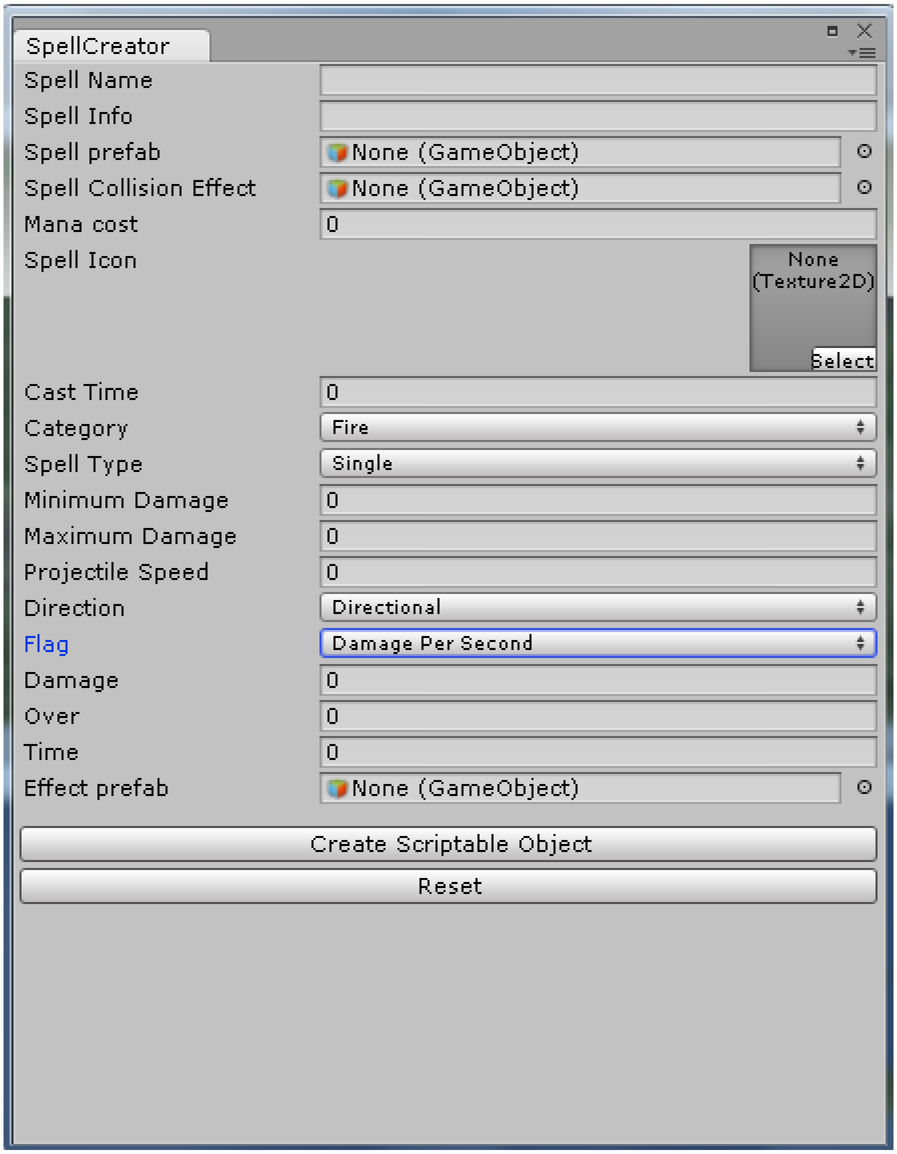
Direction

- Directional : Projectile moves straight forward
- Follow : Projectile will follow the target
- Point : Spell will instantiated to target’s position like lightning…

Flag

What flag will do in an example lets say we added slow as a flag when the spell casted enemy object movement will be slowed.

I added two flag type slow and a damage over time.Let’s select a damage over time.



SpellCreator

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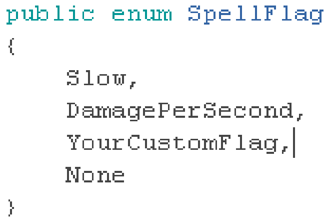
Spell Info	
Spell prefab	None (GameObject)
Spell Collision Effect	None (GameObject)
Mana cost	0
Spell Icon	None (Texture2D)
Cast Time	0
Category	Fire
Spell Type	Single
Minimum Damage	0
Maximum Damage	0
Projectile Speed	0
Direction	Directional
Flag	Damage Per Second
Damage	0
Over	0
Time	0
Effect prefab	None (GameObject)

Damage: damage value.
Over : How many tick
Time : Delay between ticks.

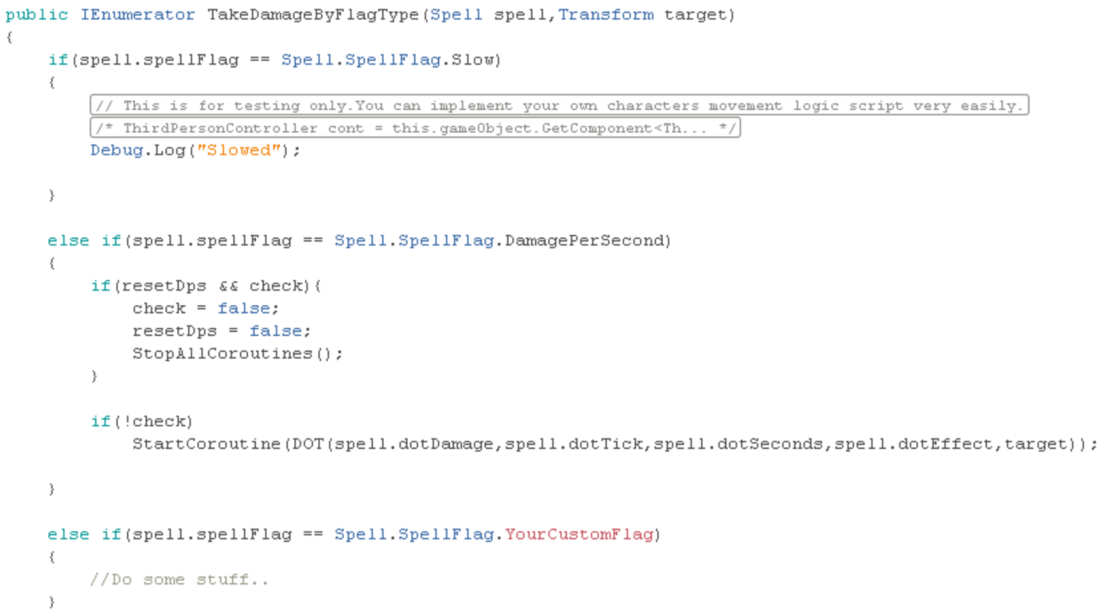
Adding a custom flag

Open up spell.cs script and find SpellFlag.



```
public enum SpellFlag
{
    Slow,
    DamagePerSecond,
    YourCustomFlag,
    None
}
```

Once we done that open up DamageByFlag.cs script.



```
public IEnumerator TakeDamageByFlagType(Spell spell,Transform target)
{
    if(spell.spellFlag == Spell.SpellFlag.Slow)
    {
        // This is for testing only.You can implement your own characters movement logic script very easily.
        /* ThirdPersonController cont = this.gameObject.GetComponent<Th... */
        Debug.Log("Slowed");

    }

    else if(spell.spellFlag == Spell.SpellFlag.DamagePerSecond)
    {
        if(resetDps && check){
            check = false;
            resetDps = false;
            StopAllCoroutines();
        }

        if(!check)
            StartCoroutine(DOT(spell.dotDamage,spell.dotTick,spell.dotSeconds,spell.dotEffect,target));

    }

    else if(spell.spellFlag == Spell.SpellFlag.YourCustomFlag)
    {
        //Do some stuff..
    }
```

As you can see i added our custom flag in the picture.

Once we filled all spell properties and clicked the create button scriptable object will be create.On the resources/spells folder.

What is scriptable object check this link.

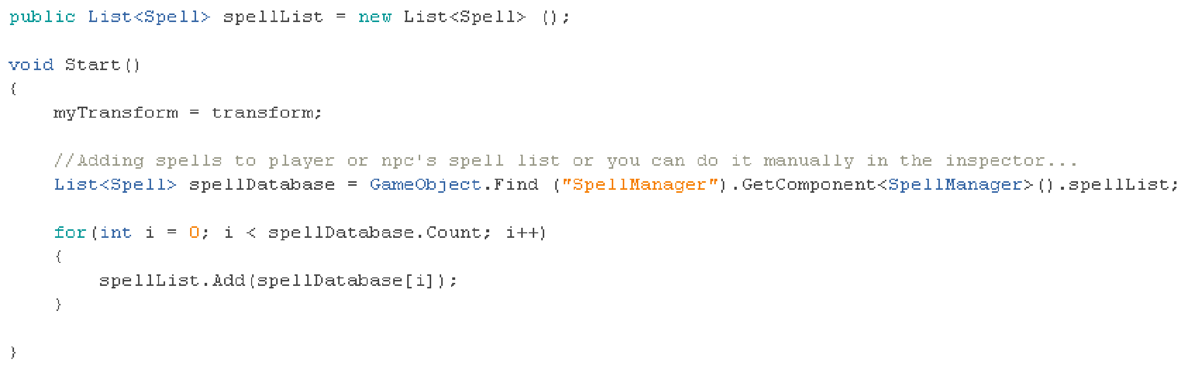
If you dont like the damage or flag type you can go spell’s scriptable object and change the value you dont liked it.

Casting Spell

Let’s open up CastSpell.cs script and you can call CastSpell(Spell spell) or RandomCastSpell();

CastSpell(Spell spell)

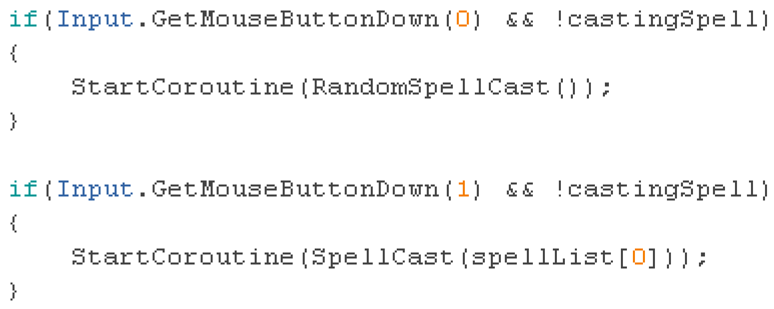
begining of the script i created a list contains a spells.



```
public List<Spell> spellList = new List<Spell> ();

void Start()
{
    myTransform = transform;

    //Adding spells to player or npc's spell list or you can do it manually in the inspector...
    List<Spell> spellDatabase = GameObject.Find ("SpellManager").GetComponent<SpellManager>().spellList;

    for(int i = 0; i < spellDatabase.Count; i++)
    {
        spellList.Add(spellDatabase[i]);
    }

}
```

if we call CastSpell(spellList[0]) it will cast first element in the spell list.

RandomCastSpell() this function will choose random spell in spell list and cast it.



```
if(Input.GetMouseButtonDown(0) && !castingSpell)
{
    StartCoroutine(RandomSpellCast());
}

if(Input.GetMouseButtonDown(1) && !castingSpell)
{
    StartCoroutine(SpellCast(spellList[0]));
}
```