

LinksPlatform's Platform.Setters Class Library

1.1 ./csharp/Platform.Setters/SetterBase.cs

```
1 using System.Runtime.CompilerServices;
2 using Platform.Interfaces;
3
4 #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
5
6 namespace Platform.Setters
7 {
8     /// <remarks>
9     /// Must be class, not struct (in order to persist access to Result property value).
10    /// </remarks>
11    public abstract class SetterBase<TResult> : ISetter<TResult>
12    {
13        protected TResult _result;
14
15        public TResult Result => _result;
16
17        [MethodImpl(MethodImplOptions.AggressiveInlining)]
18        protected SetterBase() { }
19
20        [MethodImpl(MethodImplOptions.AggressiveInlining)]
21        protected SetterBase(TResult defaultValue) => _result = defaultValue;
22
23        [MethodImpl(MethodImplOptions.AggressiveInlining)]
24        public void Set(TResult value) => _result = value;
25    }
26 }
```

1.2 ./csharp/Platform.Setters/Setter[TResult, TDecision].cs

```
1 using System.Collections.Generic;
2 using System.Runtime.CompilerServices;
3
4 #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
5
6 namespace Platform.Setters
7 {
8     public class Setter<TResult, TDecision> : SetterBase<TResult>
9     {
10        private readonly TDecision _trueValue;
11        private readonly TDecision _falseValue;
12
13        [MethodImpl(MethodImplOptions.AggressiveInlining)]
14        public Setter(TDecision trueValue, TDecision falseValue, TResult defaultValue)
15            : base(defaultValue)
16        {
17            _trueValue = trueValue;
18            _falseValue = falseValue;
19        }
20
21        [MethodImpl(MethodImplOptions.AggressiveInlining)]
22        public Setter(TDecision trueValue, TDecision falseValue) : this(trueValue, falseValue,
23            ↪ default) { }
24
25        [MethodImpl(MethodImplOptions.AggressiveInlining)]
26        public Setter(TResult defaultValue) : base(defaultValue) { }
27
28        [MethodImpl(MethodImplOptions.AggressiveInlining)]
29        public Setter() { }
30
31        [MethodImpl(MethodImplOptions.AggressiveInlining)]
32        public TDecision SetAndReturnTrue(TResult value)
33        {
34            _result = value;
35            return _trueValue;
36        }
37
38        [MethodImpl(MethodImplOptions.AggressiveInlining)]
39        public TDecision SetAndReturnFalse(TResult value)
40        {
41            _result = value;
42            return _falseValue;
43        }
44
45        [MethodImpl(MethodImplOptions.AggressiveInlining)]
46        public TDecision SetFirstAndReturnTrue(ICollection<TResult> list)
47        {
48            _result = list[0];
49            return _trueValue;
50        }
51    }
52 }
```

```

50
51     [MethodImpl(MethodImplOptions.AggressiveInlining)]
52     public TDecision SetFirstAndReturnFalse(ICollection<TResult> list)
53     {
54         _result = list[0];
55         return _falseValue;
56     }
57 }
58 }

```

1.3 ./csharp/Platform.Setters.Setter[TResult].cs

```

1 using System.Runtime.CompilerServices;
2
3 #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
4
5 namespace Platform.Setters
6 {
7     public class Setter<TResult> : Setter<TResult, bool>
8     {
9         [MethodImpl(MethodImplOptions.AggressiveInlining)]
10        public Setter(TResult defaultValue) : base(true, false, defaultValue) { }
11
12        [MethodImpl(MethodImplOptions.AggressiveInlining)]
13        public Setter() : base(true, false) { }
14    }
15 }

```

1.4 ./csharp/Platform.Setters.Tests.SetterTests.cs

```

1 using Xunit;
2
3 namespace Platform.Setters.Tests
4 {
5     public class SetterTests
6     {
7         [Fact]
8         public void ParameterlessConstructedSetterTest()
9         {
10             Setter<int> setter = new Setter<int>();
11             Assert.Equal(default, setter.Result);
12         }
13
14         [Fact]
15         public void ConstructedWithDefaultValueSetterTest()
16         {
17             Setter<int> setter = new Setter<int>(9);
18             Assert.Equal(9, setter.Result);
19         }
20
21         [Fact]
22         public void MethodsWithBooleanReturnTypeTest()
23         {
24             Setter<int> setter = new Setter<int>();
25             Assert.True(setter.SetAndReturnTrue(1));
26             Assert.Equal(1, setter.Result);
27             Assert.False(setter.SetAndReturnFalse(2));
28             Assert.Equal(2, setter.Result);
29             Assert.True(setter.SetFirstAndReturnTrue(new int[] { 3 }));
30             Assert.Equal(3, setter.Result);
31             Assert.False(setter.SetFirstAndReturnFalse(new int[] { 4 }));
32             Assert.Equal(4, setter.Result);
33         }
34
35         [Fact]
36         public void MethodsWithIntegerReturnTypeTest()
37         {
38             Setter<int, int> setter = new Setter<int, int>(1, 0);
39             Assert.Equal(1, setter.SetAndReturnTrue(1));
40             Assert.Equal(1, setter.Result);
41             Assert.Equal(0, setter.SetAndReturnFalse(2));
42             Assert.Equal(2, setter.Result);
43             Assert.Equal(1, setter.SetFirstAndReturnTrue(new int[] { 3 }));
44             Assert.Equal(3, setter.Result);
45             Assert.Equal(0, setter.SetFirstAndReturnFalse(new int[] { 4 }));
46             Assert.Equal(4, setter.Result);
47         }
48     }
49 }

```

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