

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     /// <summary>
9     /// <para>Represents a base implementation for an setter that allows you to set a passed
10     /// ↪ value to it as the result value.</para>
11     /// <para>Представляет базовую реализацию для установщика, который позволяет установить
12     /// ↪ переданное ему значение в качестве результирующего значения.</para>
13     /// </summary>
14     /// <typeparam name="TResult"><para>Type of set value.</para><para>Тип устанавливаемого
15     /// ↪ значения.</para></typeparam>
16     /// <remarks>
17     /// Must be class, not struct (in order to persist access to Result property value).
18     /// </remarks>
19     public abstract class SetterBase<TResult> : ISetter<TResult>
20     {
21         /// <summary>
22         /// <para>Represents the result value.</para>
23         /// <para>Представляет результирующее значение.</para>
24         /// </summary>
25         protected TResult _result;
26
27         /// <summary>
28         /// <para>Returns result value.</para>
29         /// <para>Возвращает результирующее значение.</para>
30         /// </summary>
31         public TResult Result => _result;
32
33         /// <summary>
34         /// <para>Initializes a new instance of the SetterBase class.</para>
35         /// <para>Инициализирует новый экземпляр класса SetterBase.</para>
36         /// </summary>
37         [MethodImpl(MethodImplOptions.AggressiveInlining)]
38         protected SetterBase() { }
39
40         /// <summary>
41         /// <para>Initializes a new instance of the SetterBase class using the passed-in value
42         /// ↪ as the default result.</para>
43         /// <para>Инициализирует новый экземпляр класса SetterBase, используя переданное
44         /// ↪ значение в качестве результирующего по умолчанию.</para>
45         /// </summary>
46         /// <param name="defaultValue"><para>The default result
47         /// ↪ value.</para><para>Результирующее значение по умолчанию.</para></param>
48         [MethodImpl(MethodImplOptions.AggressiveInlining)]
49         protected SetterBase(TResult defaultValue) => _result = defaultValue;
50
51         /// <summary>
52         /// <para>Sets the passed value as the result.</para>
53         /// <para>Устанавливает переданное значение в качестве результирующего.</para>
54         /// </summary>
55         /// <param name="value"><para>The result value.</para><para>Результирующее
56         /// ↪ значение.</para></param>
57         [MethodImpl(MethodImplOptions.AggressiveInlining)]
58         public void Set(TResult value) => _result = value;
59     }
60 }
```

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