```
LinksPlatform's Platform.Incrementers Class Library
    ./csharp/Platform.Incrementers/IIncrementer.cs
   using System.Runtime.CompilerServices;
   namespace Platform. Incrementers
4
   {
       /// <summary>
5
       /// <para>Defines an incrementer that increments any object.</para>
       /// <para>Определяет инкрементер, который выполняет приращение любого объекта.</para>
       /// </summary>
       public interface IIncrementer
10
            /// <summary>
11
12
            /// <para>Increments the object by a specific value.</para>
            /// <para>Выполняет приращение объекта на определённое значение.</para>
13
            /// </summary>
14
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
15
            void Increment();
       }
17
18
1.2
    ./csharp/Platform.Incrementers/IIncrementer|TNumber|.cs
   using System.Runtime.CompilerServices;
   namespace Platform. Incrementers
3
4
        /// <summary>
       /// <para>Defines an incrementer that increments any number with a specific type.</para>
6
       /// <para>Определяет инкрементер, который выполняет приращение любого числа определенного
           типа.</para>
       /// </summary>
       /// <typeparam name="TNumber"><para>Type of incremented number.</para>тип
9
           увеличиваемого числа.</para></typeparam>
       public interface IIncrementer<TNumber>
10
            /// <summary>
12
            /// <para>Increments the number by a specific value.</para>
13
            /// <para>Увеличивает число на определённое значение.</para>
14
            /// </summary>
            /// <param name="number"><para>The number to be incremented.</para><para>Увеличиваемое
16
               число.</para></param>
            /// <returns><para>The incremented number.</para><para>Увеличенное
17
               число.</para></returns>
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
            TNumber Increment(TNumber number);
19
       }
20
21
     ./csharp/Platform.Incrementers/Incrementer.cs
1.3
   using System.Runtime.CompilerServices;
1
2
   #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
3
   namespace Platform. Incrementers
5
        /// <remarks>
       /// Must be class, not struct (in order to persist access to Result field value).
       /// </remarks>
       public class Incrementer : IIncrementer
10
11
            /// <summary>
12
            /// <para>
13
            /// The result.
14
            /// </para>
15
            /// <para></para>
            /// </summary>
17
           protected ulong _result;
18
19
            /// <summary>
            /// <para>
21
            /// Gets the result value.
22
            /// </para>
23
            /// <para></para>
           /// </summary>
25
           public ulong Result
27
                [MethodImpl(MethodImplOptions.AggressiveInlining)]
28
                get => _result;
```

```
30
31
            /// <summary>
32
            /// <para>
            /// Initializes a new <see cref="Incrementer"/> instance.
34
            /// </para>
35
            /// <para></para>
36
            /// </summary>
37
            /// <param name="initialValue">
38
            /// <para>A initial value.</para>
39
            /// <para></para>
40
            /// </param>
41
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
42
43
            public Incrementer(ulong initialValue) => _result = initialValue;
44
            /// <summary>
45
            /// <para>
            /// Initializes a new <see cref="Incrementer"/> instance.
47
            /// </para>
48
            /// <para></para>
49
            /// </summary>
50
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
5.1
            public Incrementer() { }
52
53
            /// <summary>
54
            /// <para>
55
            /// Increments this instance.
56
            /// </para>
57
            /// <para></para>
58
            /// </summary>
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
60
            public void Increment() => _result++;
61
        }
62
   }
63
     ./csharp/Platform.Incrementers/Incrementer[TValue, TDecision].cs
   using System.Runtime.CompilerServices;
   #pragma warning disable IDE0060 // Remove unused parameter
3
   #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
4
   namespace Platform. Incrementers
6
7
        /// <summary>
8
        /// <para>
9
        /// Represents the incrementer.
10
        /// </para>
11
        /// <para></para>
12
        /// </summary>
13
        /// <seealso cref="Incrementer"/>
14
        public class Incrementer<TValue, TDecision> : Incrementer
15
            /// <summary>
17
            /// <para>
18
            ^{\prime\prime}/// The true value.
19
            /// </para>
20
            /// <para></para>
21
            /// </summary>
            private readonly TDecision _trueValue;
23
^{24}
            /// <summary>
25
            /// <para>
26
            /// Initializes a new <see cref="Incrementer"/> instance.
            /// </para>
            /// <para></para>
29
            /// </summary>
30
            /// <param name="initialValue">
31
            /// <para>A initial value.</para>
32
            /// <para></para>
33
            /// </param>
            /// <param name="trueValue">
            /// <para>A true value.</para>
36
            /// <para></para>
37
            /// </param>
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
39
            public Incrementer(ulong initialValue, TDecision trueValue) : base(initialValue) =>
40
                _trueValue = trueValue;
41
            /// <summary>
```

```
/// <para>
43
             /// Initializes a new <see cref="Incrementer"/> instance.
44
             /// </para>
45
             /// <para></para>
46
             /// </summary>
             /// <param name="trueValue">
48
             /// <para>A true value.</para>
49
             /// <para></para>
50
             /// </param>
             [MethodImpl(MethodImplOptions.AggressiveInlining)]
52
             public Incrementer(TDecision trueValue) => _trueValue = trueValue;
53
             /// <summary>
/// <para>
55
56
             /// Initializes a new <see cref="Incrementer"/> instance.
             /// </para>
58
             /// <para></para>
59
             /// </summary>
             [{\tt MethodImpl}({\tt MethodImpl}{\tt Options}. {\tt AggressiveInlining})]
61
             public Incrementer() { }
62
63
             /// <summary>
64
             /// <para>
65
             /// Increments the and return true.
             /// </para>
67
             /// <para></para>
68
             /// </summary>
69
             /// <returns>
70
             /// <para>The true value.</para>
71
             /// <para></para>
             /// </returns>
             [MethodImpl(MethodImplOptions.AggressiveInlining)]
74
             public TDecision IncrementAndReturnTrue()
75
76
                  _result++;
77
                 return _trueValue;
             }
79
80
             /// <summary>
81
             /// <para>
82
             /// \bar{\text{Increments}} the and return true using the specified value.
83
             /// </para>
84
             /// <para></para>
85
             /// </summary>
86
             /// <param name="value">
             /// <para>The value.</para>
88
             /// <para></para>
89
             /// </param>
             /// <returns>
91
             /// <para>The true value.</para>
92
             /// <para></para>
93
             /// </returns>
             [MethodImpl(MethodImplOptions.AggressiveInlining)]
95
             public TDecision IncrementAndReturnTrue(TValue value)
96
                  _result++;
98
                 return _trueValue;
             }
100
        }
101
      ./csharp/Platform.Incrementers/Incrementer[TValue].cs
    using System.Runtime.CompilerServices;
 2
    #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
 4
    namespace Platform.Incrementers
 5
 6
        /// <summary>
        /// <para>
         /// Represents the incrementer.
 9
        /// </para>
10
        /// <para></para>
11
        /// </summary>
12
        /// <seealso cref="Incrementer{TValue, bool}"/>
13
        public class Incrementer<TValue> : Incrementer<TValue, bool>
14
             /// <summary>
16
             /// <para>
```

```
/// Initializes a new <see cref="Incrementer"/> instance.
18
            /// </para>
19
            /// <para></para>
20
            /// </summary>
21
            /// <param name="initialValue">
            /// <para>A initial value.</para>
23
            /// <para></para>
24
            /// </param>
25
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
            public Incrementer(ulong initialValue) : base(initialValue, true) { }
27
            /// <summary>
            /// <para>
30
            /// Initializes a new <see cref="Incrementer"/> instance.
31
            /// </para>
            /// <para></para>
33
            /// </summary>
34
            [MethodImpl(MethodImplOptions.AggressiveInlining)]
            public Incrementer() : base(true) { }
36
37
   }
38
    ./csharp/Platform.Incrementers.Tests/IncrementerTests.cs
   using Xunit;
   namespace Platform. Incrementers. Tests
        /// <summary>
5
        /// <para>
6
        /// Represents the incrementer tests.
        /// </para>
        /// <para></para>
9
        /// </summary>
10
        public class IncrementerTests
11
12
            /// <summary>
13
            /// <para>
14
            /// Tests that parameterless constructed setter test.
15
            /// </para>
16
            /// <para></para>
            /// </summary>
1.8
            [Fact]
19
            public void ParameterlessConstructedSetterTest()
20
21
                Incrementer<int> incrementer = new Incrementer<int>();
22
                Assert.Equal(default, incrementer.Result);
23
            }
25
            /// <summary>
            /// <para>
27
            /// Tests that constructed with default value setter test.
28
            /// </para>
            /// <para></para>
            /// </summary>
31
            [Fact]
32
            public void ConstructedWithDefaultValueSetterTest()
34
                Incrementer<int> incrementer = new Incrementer<int>(9UL);
35
                Assert.Equal(9UL, incrementer.Result);
36
            }
37
38
            /// <summary>
39
            /// <para>
40
            /// Tests that methods with boolean return type test.
41
            /// </para>
            /// <para></para>
43
            /// </summary>
44
            [Fact]
45
            public void MethodsWithBooleanReturnTypeTest()
47
                Incrementer<int> incrementer = new Incrementer<int>();
48
                incrementer.Increment();
                Assert.Equal(1UL, incrementer.Result);
50
                Assert.True(incrementer.IncrementAndReturnTrue());
51
                Assert.Equal(2UL, incrementer.Result);
52
54
            /// <summary>
```

```
/// <para>
/// Tests that methods with integer return type test.
56
             /// </para>
/// <para></para>
/// <para></para>
/// </summary>
58
59
             public void MethodsWithIntegerReturnTypeTest()
{
61
62
63
                  Incrementer<int, int> incrementer = new Incrementer<int, int>(1);
                  incrementer.Increment();
65
                  Assert.Equal(1UL, incrementer.Result);
66
                  Assert.Equal(1, incrementer.IncrementAndReturnTrue());
                  Assert.Equal(2UL, incrementer.Result);
             }
69
        }
70
   }
71
```

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