

## LinksPlatform's Platform.Comparers Class Library

### 1.1 ./csharp/Platform.Comparers/Comparer.cs

```
1 using System;
2 using System.Collections;
3
4 #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
5
6 namespace Platform.Comparers
7 {
8     /// <summary>
9     /// <para>
10    /// Represents the comparer.
11    /// </para>
12    /// <para></para>
13    /// </summary>
14    /// <seealso cref="IComparer"/>
15    public class Comparer : IComparer
16    {
17        /// <summary>
18        /// <para>
19        /// The compare.
20        /// </para>
21        /// <para></para>
22        /// </summary>
23        private readonly Func<object, object, int> _compare;
24        /// <summary>
25        /// <para>
26        /// Initializes a new <see cref="Comparer"/> instance.
27        /// </para>
28        /// <para></para>
29        /// </summary>
30        /// <param name="comparer">
31        /// <para>A comparer.</para>
32        /// <para></para>
33        /// </param>
34        public Comparer(IComparer comparer) : this(comparer.Compare) { }
35        /// <summary>
36        /// <para>
37        /// Initializes a new <see cref="Comparer"/> instance.
38        /// </para>
39        /// <para></para>
40        /// </summary>
41        /// <param name="compare">
42        /// <para>A compare.</para>
43        /// <para></para>
44        /// </param>
45        public Comparer(Func<object, object, int> compare) => _compare = compare;
46        /// <summary>
47        /// <para>
48        /// Compares the x.
49        /// </para>
50        /// <para></para>
51        /// </summary>
52        /// <param name="x">
53        /// <para>The .</para>
54        /// <para></para>
55        /// </param>
56        /// <param name="y">
57        /// <para>The .</para>
58        /// <para></para>
59        /// </param>
60        /// <returns>
61        /// <para>The int</para>
62        /// <para></para>
63        /// </returns>
64        public int Compare(object x, object y) => _compare(x, y);
65        public static implicit operator Comparer(Func<object, object, int> compare) => new
66        ↪ Comparer(compare);
67        public static implicit operator Func<object, object, int>(Comparer comparer) =>
68        ↪ comparer._compare;
69    }
70 }
```

### 1.2 ./csharp/Platform.Comparers/Comparer[T].cs

```
1 using System;
2 using System.Collections.Generic;
3
4 #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
```

```

5
6 namespace Platform.Comparers
7 {
8     /// <summary>
9     /// <para>
10    /// Represents the comparer.
11    /// </para>
12    /// <para></para>
13    /// </summary>
14    /// <seealso cref="IComparer{T}" />
15    public class Comparer<T> : IComparer<T>
16    {
17        /// <summary>
18        /// <para>
19        /// The compare.
20        /// </para>
21        /// <para></para>
22        /// </summary>
23        private readonly Func<T, T, int> _compare;
24        /// <summary>
25        /// <para>
26        /// Initializes a new <see cref="Comparer" /> instance.
27        /// </para>
28        /// <para></para>
29        /// </summary>
30        /// <param name="comparer">
31        /// <para>A comparer.</para>
32        /// <para></para>
33        /// </param>
34        public Comparer(IComparer<T> comparer) : this(comparer.Compare) { }
35        /// <summary>
36        /// <para>
37        /// Initializes a new <see cref="Comparer" /> instance.
38        /// </para>
39        /// <para></para>
40        /// </summary>
41        /// <param name="compare">
42        /// <para>A compare.</para>
43        /// <para></para>
44        /// </param>
45        public Comparer(Func<T, T, int> compare) => _compare = compare;
46        /// <summary>
47        /// <para>
48        /// Compares the x.
49        /// </para>
50        /// <para></para>
51        /// </summary>
52        /// <param name="x">
53        /// <para>The .</para>
54        /// <para></para>
55        /// </param>
56        /// <param name="y">
57        /// <para>The .</para>
58        /// <para></para>
59        /// </param>
60        /// <returns>
61        /// <para>The int</para>
62        /// <para></para>
63        /// </returns>
64        public int Compare(T x, T y) => _compare(x, y);
65        public static implicit operator Comparer<T>(Func<T, T, int> compare) => new
66        ↪ Comparer<T>(compare);
67        public static implicit operator Func<T, T, int>(Comparer<T> comparer) =>
68        ↪ comparer._compare;
69    }
70 }

```

### 1.3 ./csharp/Platform.Comparers.Tests/ComparerTests.cs

```

1 using System;
2 using Xunit;
3
4 namespace Platform.Comparers.Tests
5 {
6     /// <summary>
7     /// <para>
8     /// Represents the comparer tests.
9     /// </para>
10    /// <para></para>

```

```

11     /// </summary>
12 public class ComparerTests
13 {
14     /// <summary>
15     /// <para>
16     /// Tests that function conversion test.
17     /// </para>
18     /// <para></para>
19     /// </summary>
20     [Fact]
21     public void FunctionConversionTest()
22     {
23         Func<object, object, int> function = (object x, object y) =>
24             ↪ x.GetHashCode().CompareTo(y.GetHashCode());
25         Comparer comparer = function;
26         var x = new object();
27         var y = new object();
28         Assert.Equal(function(x, y), comparer.Compare(x, y));
29     }
30 }

```

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