

# 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        private readonly Func<object, object, int> _compare;
18        /// <summary>
19        /// <para>
20        /// Initializes a new <see cref="Comparer"/> instance.
21        /// </para>
22        /// <para></para>
23        /// </summary>
24        /// <param name="comparer">
25        /// <para>A comparer.</para>
26        /// <para></para>
27        /// </param>
28        public Comparer(IComparer comparer) : this(comparer.Compare) { }
29        /// <summary>
30        /// <para>
31        /// Initializes a new <see cref="Comparer"/> instance.
32        /// </para>
33        /// <para></para>
34        /// </summary>
35        /// <param name="compare">
36        /// <para>A compare.</para>
37        /// <para></para>
38        /// </param>
39        public Comparer(Func<object, object, int> compare) => _compare = compare;
40        /// <summary>
41        /// <para>
42        /// Compares the x.
43        /// </para>
44        /// <para></para>
45        /// </summary>
46        /// <param name="x">
47        /// <para>The .</para>
48        /// <para></para>
49        /// </param>
50        /// <param name="y">
51        /// <para>The .</para>
52        /// <para></para>
53        /// </param>
54        /// <returns>
55        /// <para>The int</para>
56        /// <para></para>
57        /// </returns>
58        public int Compare(object x, object y) => _compare(x, y);
59        public static implicit operator Comparer(Func<object, object, int> compare) => new
60        ↪ Comparer(compare);
61        public static implicit operator Func<object, object, int>(Comparer comparer) =>
62        ↪ comparer._compare;
63    }
64 }
```

## 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    /// </summary>
```

```

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

```

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

```

1  using System;
2  using Xunit;
3
4  namespace Platform.Comparers.Tests
5  {
6      public class ComparerTests
7      {
8          [Fact]
9          public void FunctionConversionTest()
10         {
11             Func<object, object, int> function = (object x, object y) =>
12             ↪ x.GetHashCode().CompareTo(y.GetHashCode());
13             Comparer comparer = function;
14             var x = new object();
15             var y = new object();
16             Assert.Equal(function(x, y), comparer.Compare(x, y));
17         }
18     }

```

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