

LinksPlatform's Platform.Communication.Protocol.Lino Class Library

1.1 ./Platform.Communication.Protocol.Lino/Link.cs

```

1  using System;
2  using System.Collections.Generic;
3  using System.Runtime.CompilerServices;
4  using System.Text;
5  using Platform.Collections;
6  using Platform.Collections.Lists;
7
8  #pragma warning disable CS1591 // Missing XML comment for publicly visible type or member
9
10 namespace Platform.Communication.Protocol.Lino
11 {
12     public struct Link : IEquatable<Link>
13     {
14         public string Id
15         {
16             [MethodImpl(MethodImplOptions.AggressiveInlining)]
17             get;
18             [MethodImpl(MethodImplOptions.AggressiveInlining)]
19             set;
20         }
21
22         public IList<Link> Values
23         {
24             [MethodImpl(MethodImplOptions.AggressiveInlining)]
25             get;
26             [MethodImpl(MethodImplOptions.AggressiveInlining)]
27             set;
28         }
29
30         [MethodImpl(MethodImplOptions.AggressiveInlining)]
31         public Link(string id, IList<Link> values) => (Id, Values) = (id, values);
32
33         [MethodImpl(MethodImplOptions.AggressiveInlining)]
34         public Link(IList<Link> values) : this(null, values) { }
35
36         [MethodImpl(MethodImplOptions.AggressiveInlining)]
37         public Link(string id) : this(id, null) { }
38
39         [MethodImpl(MethodImplOptions.AggressiveInlining)]
40         public override string ToString() => Values.IsNullOrEmpty() ? $"{Id}" :
41             ↳ GetLinkValuesString();
42
43         [MethodImpl(MethodImplOptions.AggressiveInlining)]
44         private string GetLinkValuesString() => Id == null ? $"{GetValuesString()}" :
45             ↳ $"{Id}: {GetValuesString()}";
46
47         [MethodImpl(MethodImplOptions.AggressiveInlining)]
48         public string GetValuesString()
49         {
50             var sb = new StringBuilder();
51             for (int i = 0; i < Values.Count; i++)
52             {
53                 if (i > 0)
54                 {
55                     sb.Append(' ');
56                 }
57                 sb.Append(GetValueString(Values[i]));
58             }
59             return sb.ToString();
60
61         [MethodImpl(MethodImplOptions.AggressiveInlining)]
62         public static string GetValueString(Link value) => value.ToLinkOrIdString();
63
64         [MethodImpl(MethodImplOptions.AggressiveInlining)]
65         public string ToLinkOrIdString() => Values.IsNullOrEmpty() ? Id : ToString();
66
67         [MethodImpl(MethodImplOptions.AggressiveInlining)]
68         public static implicit operator Link(string value) => new Link(value);
69
70         [MethodImpl(MethodImplOptions.AggressiveInlining)]
71         public static implicit operator Link(ValueTuple<string, IList<Link>> value) => new
72             ↳ Link(value.Item1, value.Item2);
73
74         [MethodImpl(MethodImplOptions.AggressiveInlining)]
75         public override bool Equals(object obj) => obj is Link link ? Equals(link) : false;
76

```

```

75     [MethodImpl(MethodImplOptions.AggressiveInlining)]
76     public override int GetHashCode() => (Id, Values.GenerateHashCode()).GetHashCode();
77
78     [MethodImpl(MethodImplOptions.AggressiveInlining)]
79     public bool Equals(Link other) => Id == other.Id && Values.EqualTo(other.Values);
80
81     [MethodImpl(MethodImplOptions.AggressiveInlining)]
82     public static bool operator ==(Link left, Link right) => left.Equals(right);
83
84     [MethodImpl(MethodImplOptions.AggressiveInlining)]
85     public static bool operator !=(Link left, Link right) => !(left == right);
86 }
87 }

```

1.2 ./Platform.Communication.Protocol.Lino.Tests/ParserTests.cs

```

1  using Xunit;
2
3  namespace Platform.Communication.Protocol.Lino.Tests
4  {
5      public static class ParserTests
6      {
7          [Fact]
8          public static void BasicTest()
9          {
10              var parser = new Parser();
11              var links = parser.Parse(@"(papa (3: loves mama))
12 (son 3)
13 (everyone 3)
14 (3 (is (loves mama)))
15 (point)
16 (point: point point)");
17              Assert.Equal("papa", links[0].Values[0].Id);
18              Assert.Equal("point", links[4].Id);
19          }
20      }
21 }

```

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