

```

1  *** Func<T, TResult> ***
2
3  using System;
4  namespace FuncDemo
5  {
6      internal class Program
7      {
8          private static void Main()
9          {
10             //类似委托功能
11             Func<InputArgs, Result> func = TsetFunction;
12             Console.WriteLine("第一种方式: ");
13             Console.WriteLine(func(new InputArgs("zhangqs008", "123456")));
14
15             Console.WriteLine("第二种方式: ");
16             CallMethod(func, new InputArgs("zhangqs008", "1234567")); //或者
17             CallMethod(TsetFunction, new InputArgs("zhangqs008", "1234567"));
18         }
19
20         public static Result TsetFunction(InputArgs input)
21         {
22             Result result = new Result();
23             result.Flag = String.Compare("zhangqs008", input.UserName, StringComparison.OrdinalIgnoreCase) == 0 &
24                 String.Compare("123456", input.Password, StringComparison.OrdinalIgnoreCase) == 0;
25             result.Msg = "当前调用者: " + input.UserName;
26             return result;
27         }
28
29         public static void CallMethod<T>(Func<T, Result> func, T item)
30         {
31             Result result = func(item);
32             Console.WriteLine(result.ToString());
33         }
34
35         /// <summary>
36         /// 方法参数
37         /// </summary>
38         public class InputArgs
39         {
40             public InputArgs(string userName, string password)
41             {
42                 UserName = userName;
43                 Password = password;
44             }
45
46             public string UserName { get; set; }
47             public string Password { get; set; }
48         }
49
50         /// <summary>
51         /// 方法结果
52         /// </summary>
53         public class Result
54         {
55             public string Msg { get; set; }
56             public bool Flag { get; set; }
57             public override string ToString()
58             {
59                 return string.Format("Flag:{0},Msg:{1}", Flag, Msg);
60             }
61         }
62     }
63 }
64
65 -----
66
67 public static int StrToInt(String s)
68 {
69     return int.Parse(s);
70 }
71 public static void Main(String[] argv)
72 {
73     String[] s = { "123", "345", "567" };
74     IEnumerable<int> t=s.Select<String, int>(StrToInt);
75     foreach (int i in t)
76     {
77         Console.WriteLine(i);
78     }

```

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79 }
80
81 而是用Func<T>的话:
82
83 public static void Main(String[] argv)
84 {
85     String[] s = { "123", "345", "567" };
86     Func<string, int> f = (x) => int.Parse(x); //简化了很多, 所以说它只是提供便利而已
87     IEnumerable<int> t=s.Select<String, int>(f);
88     foreach (int i in t)
89     {
90         Console.WriteLine(i);
91     }
92 }
93
94 -----
95
96 C#提供的Func泛型委托的多个重载版本:
97 例如:
98     Func<in T1,out T>
99     Func<in T1,in T2,out T>
100     Func<in T1,in T2,in T3,out T>
101
102 -----
```