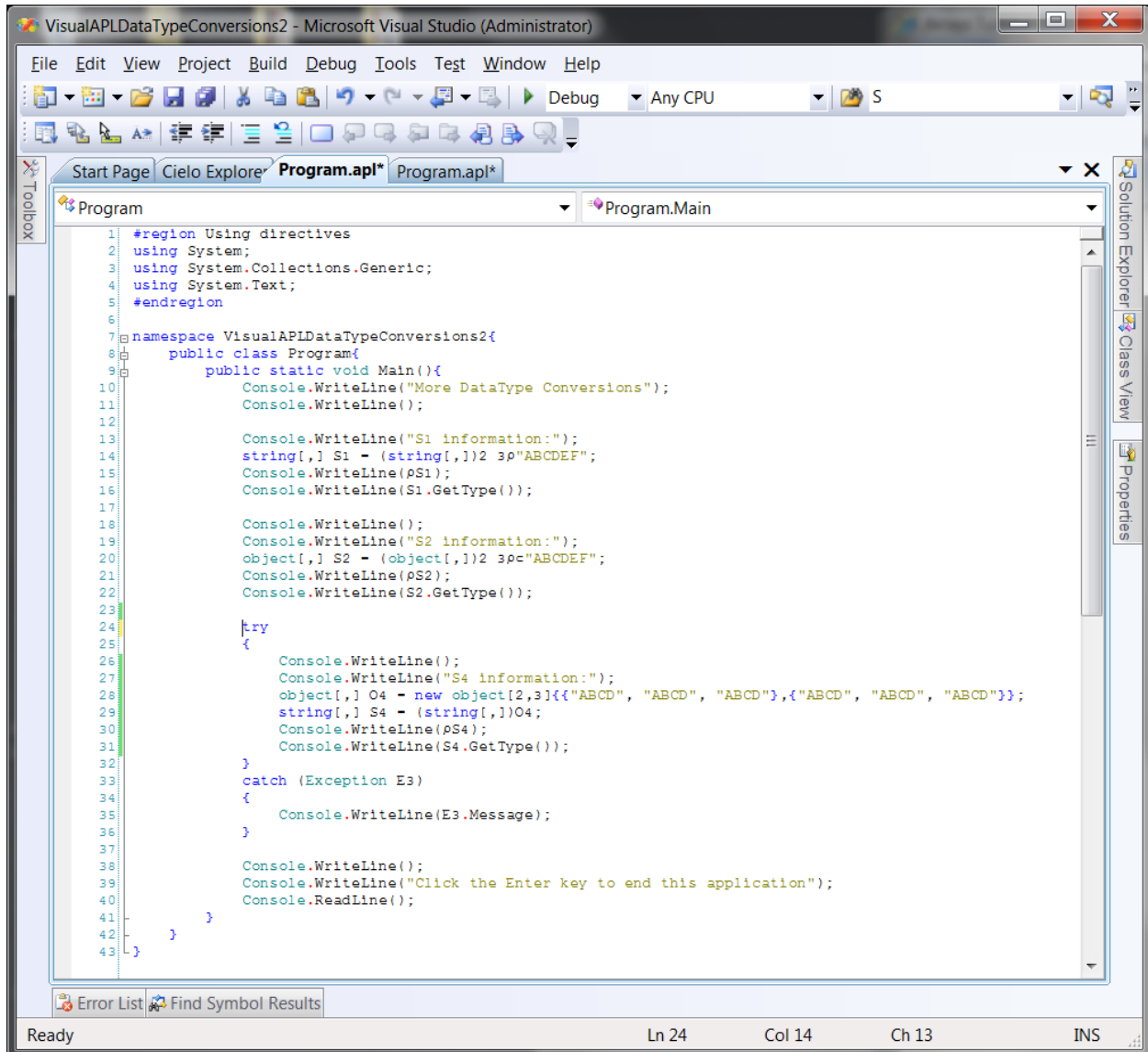


VisualAPL: DataTyping Examples #2

In this project object arrays are created using the VisualAPL shape operator. The project also illustrates that .Net does not support a direct datatype cast from object[,] to string[,] even if all the elements of the object array are strings.



```
1 #region Using directives
2 using System;
3 using System.Collections.Generic;
4 using System.Text;
5 #endregion
6
7 namespace VisualAPLDataTypesConversions2{
8     public class Program{
9         public static void Main(){
10             Console.WriteLine("More Data Type Conversions");
11             Console.WriteLine();
12
13             Console.WriteLine("S1 information:");
14             string[,] S1 = (string[,])2 3p"ABCDEF";
15             Console.WriteLine(pS1);
16             Console.WriteLine(S1.GetType());
17
18             Console.WriteLine();
19             Console.WriteLine("S2 information:");
20             object[,] S2 = (object[,])2 3p"ABCDEF";
21             Console.WriteLine(pS2);
22             Console.WriteLine(S2.GetType());
23
24             try
25             {
26                 Console.WriteLine();
27                 Console.WriteLine("S4 information:");
28                 object[,] O4 = new object[2,3]{{"ABCD", "ABCD", "ABCD"}, {"ABCD", "ABCD", "ABCD"}};
29                 string[,] S4 = (string[,])O4;
30                 Console.WriteLine(pS4);
31                 Console.WriteLine(S4.GetType());
32             }
33             catch (Exception E3)
34             {
35                 Console.WriteLine(E3.Message);
36             }
37
38             Console.WriteLine();
39             Console.WriteLine("Click the Enter key to end this application");
40             Console.ReadLine();
41         }
42     }
43 }
```

VisualAPLDataTypesConversions2 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Tools Test Window Help

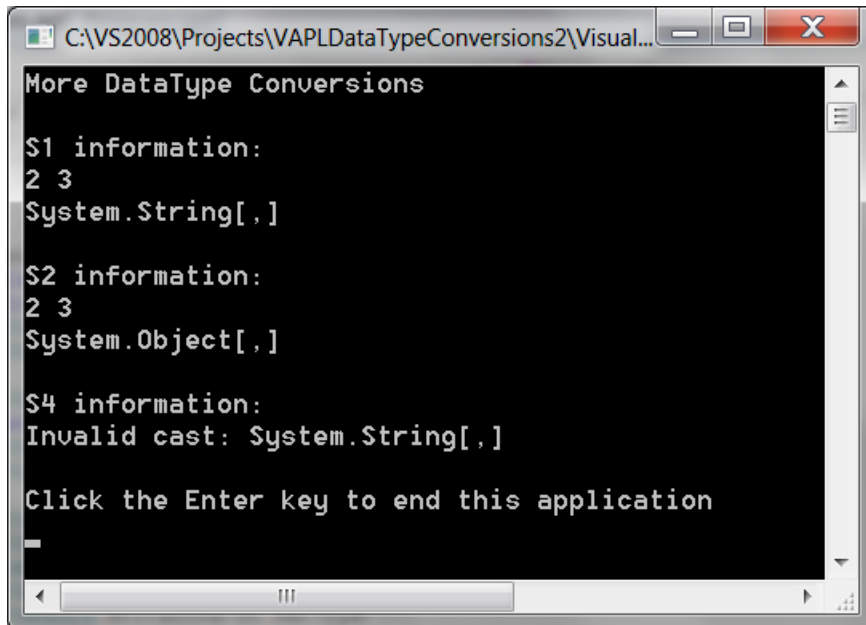
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Program Program.Main

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When the project is run the following output results:



```
More DataType Conversions

S1 information:
2 3
System.String[,]

S2 information:
2 3
System.Object[,]

S4 information:
Invalid cast: System.String[,]

Click the Enter key to end this application
```

Notice that the creation S1 as a string[,] array and the creation of S2 as an object[,] array both execute successfully. The creation of S4 as a string[,] array fails which illustrates that .Net does not support a direct cast of object[,] to string[,], even when the object array elements are all strings. Since this type of direct cast is not supported in .Net, this is why a VisualAPL statement such as

```
string[,] S3 = (string[,])2 3ρ<"ABCDEF"
```

cannot be supported.