

Lesson 4: Data Structure

Array List

One of the limitations of the traditional array is the fact that you cannot change the size or length of an array after it is created. To give you more flexibility,.NET includes another class, the ArrayList class, which facilitates creating a listlike structure that can dynamically increase or decrease in length. Like traditional arrays, indexes of ArrayList objects are zero based. The class includes a large number of predefined methods.

```
using System;
using System.Collections;
public class SamplesArrayList {

    public static void Main() {

        // Creates and initializes a new ArrayList.
        ArrayList myAL = new ArrayList();
        myAL.Add("Hello");
        myAL.Add("World");
        myAL.Add("!");

        // Displays the properties and values of the ArrayList.
        Console.WriteLine( "myAL" );
        Console.WriteLine( "  Count:  {0}", myAL.Count );
        Console.WriteLine( "  Capacity: {0}", myAL.Capacity );
        Console.Write( "  Values:" );
        PrintValues( myAL );
    }

    public static void PrintValues( IEnumerable myList ) {
```

```
foreach ( Object obj in myList )  
    Console.Write( " {0}", obj );  
Console.WriteLine();  
}  
  
}
```

/*

This code produces output similar to the following:

myAL

Count: 3

Capacity: 4

Values: Hello World !

*/