

# Convert errflag into a property

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/*
C#: The Complete Reference
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*/

// Convert errflag into a property.

using System;

class FailSoftArray {
    int[] a; // reference to underlying array
    int len; // length of array

    bool errflag; // now private

    // Construct array given its size.
    public FailSoftArray(int size) {
        a = new int[size];
        len = size;
    }

    // Read-only Length property.
    public int Length {
        get {
            return len;
        }
    }

    // Read-only Error property.
    public bool Error {
        get {
```

```
return errflag;
}
}

// This is the indexer for FailSoftArray.
public int this[int index] {
// This is the get accessor.
get {
if(ok(index)) {
errflag = false;
return a[index];
} else {
errflag = true;
return 0;
}
}

// This is the set accessor
set {
if(ok(index)) {
a[index] = value;
errflag = false;
}
else errflag = true;
}
}

// Return true if index is within bounds.
private bool ok(int index) {
if(index >= 0 & index < Length) return true; return false; } }
// Demonstrate the improved fail-soft array. public class
FinalFSDemo { public static void Main() { FailSoftArray fs =
new FailSoftArray(5); // use Error property for(int i=0; i <
fs.Length + 1; i++) { fs[i] = i*10; if(fs.Error)
Console.WriteLine("Error with index " + i); } } } [/csharp]
```