

C# Unsafe Bug

Source:

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.languages.csharp/2005-12/msg05840.html>

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I was writing some routines which could do bitwise boolean operations on byte arrays, and I ran into what I think is a bug with C#'s unsafe code. I am pasting a console application below. Can anyone give an explanation, or has this type of problem been reported already? Thanks.

```
using System;
using System.Collections.Generic;
using System.Text;

namespace UnsafeBug
{
    class Program
    {
        static void Main(string[] args)
        {
            byte[] dest = new byte[] { 0x01, 0xff };
            byte[] sdata1 = new byte[] { 0x01, 0xff };
            UnsafeOr(sdata1, dest, dest, 7);

            for (int ii = 0; ii < dest.Length; ii++)
            {
                Console.WriteLine("Byte {0} = 0x{1:X2}", ii + 1, dest[ii]);
            }
            Console.WriteLine("Hit Enter to quit..."); Console.ReadLine();
        }

        // OR's together 2 byte arrays into 'dest' without touching the
        // first few bits of 'dest'.
        // it is allowed for sources/destinations to be the same.
        static void UnsafeOr(byte[] src1, byte[] src2, byte[] dest, int
        firstBit)
        {
            byte mask = (byte)(0x80 >> firstBit);
            int nbytes = Math.Min(Math.Min(src1.Length, src2.Length),
            dest.Length);
            unsafe
            {
```

