FIX: BarcodeReader Misses One or More Barcodes on an Image Containing Multiple Adjacent Barcodes

The Atalasoft BarcodeReader can sometimes get "confused" by multiple barcodes which are a bit too close to each other... this can result in missed barcodes on a page even though the barcode images are completely valid and should have read.

Here are two sample methods (meant to be used together) to perform an iterative read:

```csharp
///<summary>
/// The DotImage barcode reading engine may get confused by multiple barcodes in too-close proximity
/// to each other... this method will use an iterative process to try and read what it can, then
/// hide the codes it found and re-read to see if more barcodes can be found...
///
/// It will continue looping until no new barcodes are found.
///</summary>
///<param name="image"></param>
///<param name="options"></param>
///<param name="useThresholding"></param>
///<returns></returns>
private BarCode[] ReadAllBarcodesFromImage(AtalaImage image, ReadOpts options, bool useThresholding)
{
    // Doing this ensures we are not modifying the image object that was passed in
    AtalaImage imgCopy = (AtalaImage)image.Clone();
    List<BarCode> allCodes = new List<BarCode>();

    // the first pass uses an unaltered image so just do that first
    BarCode[] codes = PerformRead(imgCopy, options, useThresholding);
```

```csharp
    // Now, we will set up the Canvas which we will "white out" found
    barcodes from the previous run
        Canvas c = newCanvas(imgCopy);

    // iterate the results, doing the whilteout.. then try re-reading to see
    if we get more results
        while (codes != null && codes.Length > 0)
        {
            foreach (var bc in codes)
            {
                // Ok, we have a barcode... add it to the return list
                allCodes.Add(bc);

                // this code will write out a white rectangle over the location of
    the found barcode in the image supplied...
                // that will allow the engine to have a new, fresh view of the
    page where the already found codes are not present
                c.DrawRectangle(bc.BoundingRect, newSolidFill(Color.White));
            }

    // once again, we do a read.. if we end up not finding results
    we're done
    // if we find any new barcodes, we'll repeat the process, adding
    barcodes to the already found ones
            codes = PerformRead(imgCopy, options, useThresholding);
        }

    // this is no longer needed, so clean up after ourselves
    imgCopy.Dispose();
```

```csharp
        return allCodes.ToArray();

    }

    ///<summary>
    /// We need this method because even though we're updating the
    image directly the engine needs a new, updated copy
    ///</summary>
    ///<param name="image"></param>
    ///<param name="options"></param>
    ///<param name="useThresholding"></param>
    ///<returns></returns>
    private BarCode[] PerformRead(AtalaImage image, ReadOpts options, bool useThresholding)
    {
        BarCode[] results = null;
        using (BarCodeReader reader = new BarCodeReader(image, useThresholding))
        {
            results = reader.ReadBars(options);
        }
        return results;
    }
```

Original Article:

Q10422 - FIX: BarcodeReader Misses One or More Barcodes on an Image Containing Multiple Adjacent Barcodes

Atalasoft Knowledge Base
https://www.atalasoft.com/kb2/KB/50078/FIX-BarcodeReader-Misses-One-or-More...