

Re: Compare the values of two sorted arrays of variable size.

Source:

<http://www.tech-archive.net/Archive/Scripting/microsoft.public.scripting.vbscript/2005-06/msg00889.html>

- *From:* "Rafael T" <okinawapro@xxxxxxxxxxx>
 - *Date:* Tue, 21 Jun 2005 10:37:53 +0900
-

Andy,

This algorithm does not check for every possible location in each array.
Your easiest way to check would be 2 loops (like the first idea you had)

grab one item on the first array and compare it against all items on the second array, move to the second item and compare it against all items on the second array and so on.

if you need an example, let me know. if you need an example of why the code you have does not work as expected, let me know and i explain it to you.

RT

"Andy" <andy.and.suzanne.cooper@xxxxxxxxxxx> wrote in message news:1119306333.719399.87100@xx

> Hi,

>

> This seems a bit of an old chestnut but please humour me ;)

>

> My aim is to compare two arrays and identify values in List A which don't appear in List B. And vice versa. My arrays are one dimensional and contain names. The number of elements in each array is not fixed.

>

> I've done some searching and there are two basic algorithms. The first contains a double loop where each element of the inner loop is compared to elements in the outer loop. At best it kicks out of the inner loop when a match is found.

>

> The second method seems to be more elegant but assumes the two arrays have already been sorted. Basically the indices of the two arrays are incremented when an unmatched value is found. An example code can be found below which works ... until you place a unique value as the last element :(

>

> For example, if I have:

>

> ListA = Array("Andy", "Bob", "Cath", "Dexter")

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> ListB = Array("Andy", "Bob", "Cath")
>
> BOTH "Cath" and "Dexter" are found to be unique! I switched the values
> of list A to B and came up with the same poor result.
>
> I'd appreciate it if someone could give this a fresh look and find the
> logic error. I've been staring at it for hours :(
>
> Many thanks in advance,
>
> Andy
>
> Script:
> Option Explicit
>
> Dim ListA ' To contain a sorted list of names, unknown size.
> Dim ListB ' To contain a sorted list of names, unknown size.
> Dim lngAIdx ' Index for list A.
> Dim lngBIdx ' Index for list B.
> Dim lngMaxAIdx ' Upper value of the A list index.
> Dim lngMaxBIdx ' Upper value of the B list index.
> Dim intComparison ' Result of comparing two strings
> '
> ListA = Array("Andy", "Bob", "Cath", "Dexter")
> ListB = Array("Bob", "Cath", "Dexter")
>
> lngAIdx = LBound(ListA)
> lngBIdx = LBound(ListB)
> lngMaxAIdx = UBound(ListA)
> lngMaxBIdx = UBound(ListB)
> '
> Do While (lngAIdx < lngMaxAIdx And lngBIdx < lngMaxBIdx)
> 'Perform a case insensitive comparison.
> intComparison = strComp(ListA(lngAIdx), ListB(lngBIdx), vbTextCompare)
> If intComparison = -1 Then ' ListA(lngAIdx) < ListB(lngBIdx)
> ' Value in A list is not present in the B list.
> WScript.Echo "Unique A Value: " & ListA(lngAIdx)
> lngAIdx = lngAIdx + 1 ' Update the A list index.
> ElseIf intComparison = 1 Then ' ListA(lngAIdx) > ListB(lngBIdx)
> ' Value in B list is not present in the A list.
> WScript.Echo "Unique B Value: " & ListB(lngBIdx)
> lngBIdx = lngBIdx + 1 ' Update the B list index.
> Else ' intComparison = 0
> ' The value appears in both lists
> lngAIdx = lngAIdx + 1
> lngBIdx = lngBIdx + 1
> End If
> Loop
> '
> 'Having reached this point, one of the lists has finished.
> 'Display the remaining unique values.
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```
> If lngAIdx < lngMaxAIdx Then
> For lngAIdx = lngAIdx to lngMaxAIdx
> WScript.Echo "Remaining Unique A value: " & ListA(lngAIdx)
> Next
> End If
> '
> If lngBIdx < lngMaxBIdx Then
> For lngBIdx = lngBIdx To lngMaxBIdx
> WScript.Echo "Remaining Unique B value: " & ListB(lngBIdx)
> Next
> End If
>
> WScript.Quit
>
```

• **References:**

◆ [Compare the values of two sorted arrays of variable size.](#)

◇ From: Andy

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