VB Array Manipulation DLL   Modified: 3/9/94

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Background:

It's tough for me to rail on Visual Basic because I make my living using it, but for
all its strengths, it really lacks any kind of support for flexible data structures.
Sure, you can use the Type statement to create record definitions and you can
use the Dim statement to create arrays. But what about a linked list or a queue?
Both of these data structures can be implemented with the tools VB contains -
with much difficulty.

One thing that always stumped me was how to delete a row in an array in some
generic way that was both fast and elegant. There are many ways to do this in
VB code, but every way I could dream up was much more cumbersome than it
needed to be.

The Specifics:

Finally, I decided I had to write a DLL.

ARRAY.DLL contains the following functions:

DeleteArrayIndex
The function is declared to Visual Basic as:
    Declare Function DeleteArrayIndex% Lib "array.dll" (X() As Any, ByVal Index%)
Parameters:
    X() is any Visual Basic array
    Index% is the index in the VB array you want to delete
Return:
    0 if unsuccessful
    -1 if successful
Comments:
    This function takes the memory contents starting from location at Index +
        1 and moves them over the contents at the location Index. This
    yields an array of the same size, but the entry at Index is effectively
    erased. Because I have not yet found a way to resize the array in C, you
    will have to do that in VB code with a ReDim Preserve statement. The
    function only accepts a one-dimentional array currently. Arrays of user-
    defined type variables are allowed, but the user-defined type definition
    must not contain variable length strings.

Sample Code

Run the VB project called ARRAY.MAK in VB design mode.

<u>Files</u>

ARRAY.C	-	DLL source code
ARRAY.DLL	-	DLL containing functions
ARRAY.MAK	-	VB demo project make file
ARRAY.WRI	-	This document
ARRAY.BAS	-	VB demo code

<u>Technical Details</u>

ARRAY.C was compiled using Borland C++ V3.1 on Windows 3.1. To rebuild it, you will need to have the custom control development kit that comes the VB PRO V3 package. Specifially, you'll need the VBAPI.H and VBAPI.LIB files.

<u>Suggestions and Other Stuff</u>

I look upon this as a beginning to create a DLL that can be greatly expanded to support many types of VB array manipulations. Your comments and suggestions are welcome. You can correspond with me via US Mail or Compuserve.

You are welcome to use the source code in whatever way you see fit so long as you agree not to hold me responsible for anything. If you end up using the code or a derivation of it in a commercial product, it would only be fair if I got a cut. I will gladly accept donations ($10 would be nice)! If you make a donation and send in a suggestion on what else you'd like to see in the DLL and I wind up implementing your suggestion, I'll send you an update free.