GetAPI Version 1.0 (beta)

A Windows API Database and Front-End for VB Programmers

by Chris Velazquez

Introduction

As I began getting halfway-decent at programming in Visual Basic, I began to realize some of the limitations I faced using VB alone. One day I happened into the computer section of my local bookstore and saw a copy of "The Visual Basic Programmers Guide to the Windows API" by Dan Appleman, which I bought immediately. This soon become the most dog-eared and coffee-stained programming book in my collection. Not long thereafter, I began writing applications which somersaulted through Windows, performing feats I hadn't dreamed of before. The true power of VB had been exposed. After that, I bought a subclassing tool, VBMSG.VBX, from JOSWare, Inc., and began intercepting other applications' messages, adding my own applications to other apps' menus, and creating Windows general protection faults (GPFs) on a regular basis. The true power of VB had now been **unleashed!!!**

However, it became rather tedious to type all those declarations manually, with their endless list of parameters, not to mention type declarations and numerous constants. The constant files were too big for Windows Notepad, so I used a third-party text editor to copy and paste these pieces of text into my VB code. I had to search back and forth for several minutes for each declaration. On CompuServe I tested some of the API cut and pasting utilities available in the MSBASIC forum. They were all based on a method which loaded the declarations from ASCII text files into memory (via list boxes, combos, etc.) While these did tend to speed up the process a bit, I found that I still had to hunt for the declarations I needed, since I seemed to use groups of declarations rather than only one in a program.

I decided that rather than rely on ASCII text files, I would create an Access database which was capable of exposing groups of API declarations based on their functionality, and not solely on alphabetical order. By making the database relational, I could make an function that required a POINTAPI structure automatically bring up the POINTAPI type declaration. Likewise, any API constants which were normally used for a particular function could be automatically loaded simultaneously.

GetAPI is a front end for this database (GETAPI.MDB). It features an alphabetic searching mode, as well as a functionality search, which is a mini-SQL generator. In addition there is access to all the following:

> Windows API functions, structure and constant declarations
> VB Professional Custom Control constants
> VB Error constants (general and database)
> General VB constants

You may be tempted to throw away those API*.TXT files forever!

Using GetAPI

When you start GetAPI from Program Manager or File Manger, you will be prompted if you wish to start VB. When you launch VB, GetAPI becomes a child window of the main VB window. That is, it behaves in much the same way as the toolbar, color palette, properties window and project window do. In fact, when you click the control box to remove GetAPI from sight, it is conveniently tucked away in the "Window" menu of VB until you need it again. It looks and feels and acts like an integral part of the Visual Basic development environment.

In order to run GetAPI at all, you need to have the following installed in your \WINDOWS\

SYSTEM subdirectory:

MSAES110.DLL	(Access database DLL, comes with VB)
MSAJT110.DLL	(Access JET engine DLL, comes with VB)
VBDB300.DLL	(VB-Access interface DLL, comes with VB)
VBMSG.VBX	(JOSWare custom control, runtime version, included here)
SPIN.VBX	(Spin Button VBX)

NOTE: Be aware that GETAPI.EXE, GETAPI.MDB and GETAPI.LDB must all reside in the same directory!

Alphabetic Searching
There are two ways to search alphabetically:
1)   by clicking the letter buttons that move the database pointer to the corresponding function, and
2)   using the spin button to scroll through the database. The speed of scrolling can be controlled from the ScrollSpeed menu.

The LetterHunt menu options allow you to simply move through the database, or to collect all the functions beginning with the clicked letter into the list box located at the lower right.

Functionality Searching
Under the word "SEARCH:" on the GetAPI window you'll notice two dropdown combo boxes and an option button group with logical operators for captions. The first combo chooses the first category to search. If you then click the "ALL" option button, all the fuctions corresponding to that category will be displayed in the list box at the right. If you choose AND, OR or EXCLUDING, the second combo box will be activated so that you can narrow your search. For example, choosing "Window" AND "Point" would return the WindowFromPoint API fuction, among others. There is plenty of overlap between categories. The category "VB Compatible" is based on the recommendations made in the book "The Visual Basic Programmers Guide to the Windows API" by Dan Appleman.

Copying Function Declarations
In order to copy a function declaration, at least one of the VB code windows must be open. The code window on top will be the one to receive the declaration. The declaration may be copied by double-clicking the function in the list box, or by clicking the "Send" button next to the function itself.

Type Declarations
If the function requires a type declaration, it will automatically show up in the API Types box. You can send it to the code window using the "Send" button. You may also select the type declaration of your choice using the "Select" button. A list of all available types will appear and double clicking the type will send it to the code window.
NOTE: You must put the type declaration before the API function that requires it in your code.

Constant Declarations
A function that uses API constants will automatically bring up the appropriate constants in the API constants box. You can copy and paste the whole thing with the "Send" button. You can select which constants to include with the "Select" button. This reveals a multi-selection list box whose contents you may choose using Ctrl-Click for multiple constant selections. The constants are grouped by there functionality, and you have access to any group of constants at any time.

Where to find help for GetAPI

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<u>Additonal Information</u>

VBMSG.VBX is the filename for VB Messenger, a Visual Basic custom control licensed by
JOSWare, Inc. VB Messenger is protected by the copyright laws of the United States, and
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