

## Windows API Declarations - VBA Data Type Cheat Sheet - 32bit / 64bit

For more information on Windows API 32bit to 64bit migration visit: [How to convert Windows API declarations in VBA for 64-bit](#)

Data type	Description	VBA<=6 (32bit only)	VBA7 64bit compatible	Comment
<b>BOOL</b>	A Boolean variable (should be <b>TRUE</b> or <b>FALSE</b> ).	Long	Long	False = 0, True = +1
<b>BOOLEAN</b>	A Boolean variable (should be <b>TRUE</b> or <b>FALSE</b> ).	Byte	Byte	False = 0, True = +1
<b>BYTE</b>	A byte (8 bits).	Byte	Byte	
<b>DWORD</b>	A 32-bit unsigned integer. The range is 0 through 4294967295 decimal	Long	Long	It's rarely relevant, but be aware that this is an unsigned type in the Win32 API.
<b>DWORDLONG</b>	A 64-bit unsigned integer. The range is 0 through 18446744073709551615 decimal.	-	LongLong	
<b>DWORD_PTR</b>	An unsigned long type for pointer precision. Use when casting a pointer to a long type to perform pointer arithmetic. (Also commonly used for general 32-bit parameters that have been extended to 64 bits in 64-bit Windows.)	Long	LongPtr	
<b>HANDLE</b>	A handle to an object.	Long	LongPtr	
<b>HBITMAP</b>	<a href="#">A handle to a bitmap.</a>	Long	LongPtr	
<b>HBRUSH</b>	<a href="#">A handle to a brush.</a>	Long	LongPtr	
<b>HCURSOR</b>	<a href="#">A handle to a cursor.</a>	Long	LongPtr	
<b>HDC</b>	<a href="#">A handle to a device context (DC).</a>	Long	LongPtr	
<b>HENHMETAFILE</b>	<a href="#">A handle to an enhanced metafile.</a>	Long	LongPtr	
<b>HFILE</b>	A handle to a file opened by <b>OpenFile</b> , not <b>CreateFile</b> .	Long	LongPtr	
<b>HFONT</b>	<a href="#">A handle to a font.</a>	Long	LongPtr	
<b>HGDIOBJ</b>	A handle to a GDI object.	Long	LongPtr	
<b>HGLOBAL</b>	A handle to a global memory block.	Long	LongPtr	
<b>HICON</b>	<a href="#">A handle to an icon.</a>	Long	LongPtr	
<b>HINSTANCE</b>	A handle to an instance. This is the base address of the module in memory.	Long	LongPtr	
<b>HKEY</b>	A handle to a registry key.	Long	LongPtr	

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<b>HLOCAL</b>	A handle to a local memory block.	Long	LongPtr	
<b>HMENU</b>	<a href="#">A handle to a menu.</a>	Long	LongPtr	
<b>HMETAFILE</b>	<a href="#">A handle to a metafile.</a>	Long	LongPtr	
<b>HMODULE</b>	A handle to a module. This is the base address of the module in memory.	Long	LongPtr	
<b>HMONITOR</b>	A handle to a display monitor.	Long	LongPtr	
<b>HPALETTE</b>	A handle to a palette.	Long	LongPtr	
<b>HPEN</b>	<a href="#">A handle to a pen.</a>	Long	LongPtr	
<b>HRESULT</b>	The return codes used by COM interfaces. For more information, see Structure of the COM Error Codes. To test an <b>HRESULT</b> value, use the <b>FAILED</b> and <b>SUCCEEDED</b> macros.	Long	Long	
<b>HRGN</b>	<a href="#">A handle to a region.</a>	Long	LongPtr	
<b>HRSRC</b>	A handle to a resource.	Long	LongPtr	
<b>HWND</b>	<a href="#">A handle to a window.</a>	Long	LongPtr	
<b>INT</b>	A 32-bit signed integer. The range is -2147483648 through 2147483647 decimal.	Long	Long	
<b>INT_PTR</b>	A signed integer type for pointer precision. Use when casting a pointer to an integer to perform pointer arithmetic.	Long	LongPtr	
<b>INT32</b>	A 32-bit signed integer. The range is -2147483648 through 2147483647 decimal.	Long	Long	
<b>INT64</b>	A 64-bit signed integer. The range is -9223372036854775808 through 9223372036854775807 decimal.	-	LongLong	
<b>LANGID</b>	<a href="#">A language identifier. For more information, see Language Identifiers.</a>	Long	Long	
<b>LCID</b>	<a href="#">A locale identifier. For more information, see Locale Identifiers.</a>	Long	Long	
<b>LCTYPE</b>	<a href="#">A locale information type. For a list, see Locale Information Constants.</a>	Long	Long	
<b>LGRPID</b>	<a href="#">A language group identifier. For a list, see EnumLanguageGroupLocales.</a>	Long	Long	
<b>LONG</b>	A 32-bit signed integer. The range is -2147483648 through 2147483647 decimal.	Long	Long	
<b>LONGLONG</b>	A 64-bit signed integer. The range is -9223372036854775808 through 9223372036854775807 decimal.	-	LongLong	

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<b>LONG_PTR</b>	A signed long type for pointer precision. Use when casting a pointer to a long to perform pointer arithmetic.	Long	LongPtr	
<b>LPARAM</b>	A message parameter.	Long	LongPtr	
<b>LPCSTR</b>	<a href="#">A pointer to a constant null-terminated string of 8-bit Windows (ANSI) characters. For more information, see Character Sets Used By Fonts.</a>	String	String	
<b>LPCTSTR</b>	An <b>LPCWSTR</b> if <b>UNICODE</b> is defined, an <b>LPCSTR</b> otherwise. For more information, see Windows Data Types for Strings.	String	String	
<b>LPCVOID</b>	A pointer to a constant of any type.	Long / Any	LongPtr / Any	
<b>LPCWSTR</b>	<a href="#">A pointer to a constant null-terminated string of 16-bit Unicode characters. For more information, see Character Sets Used By Fonts.</a>	?	?	Unicode strings can be passed to the WinAPI declaring a LongPtr and passing the StrPtr return value of the string
<b>LPDWORD</b>	<a href="#">A pointer to a DWORD.</a>	Long	Long	Must be passed By Ref
<b>LPHANDLE</b>	<a href="#">A pointer to a HANDLE.</a>	Long	LongPtr	Must be passed By Ref
<b>LPINT</b>	<a href="#">A pointer to an INT.</a>	Integer	Integer	Must be passed By Ref
<b>LPLONG</b>	<a href="#">A pointer to a LONG.</a>	Long	Long	Must be passed By Ref
<b>LPSTR</b>	<a href="#">A pointer to a null-terminated string of 8-bit Windows (ANSI) characters. For more information, see Character Sets Used By Fonts.</a>	String	String	
<b>LPVOID</b>	A pointer to any type.	Long	LongPtr	
<b>LPWSTR</b>	<a href="#">A pointer to a null-terminated string of 16-bit Unicode characters. For more information, see Character Sets Used By Fonts.</a>	?	?	Unicode strings can be passed to the WinAPI declaring a LongPtr and passing the StrPtr return value of the string
<b>LRESULT</b>	Signed result of message processing.	Long	LongPtr	
<b>QWORD</b>	A 64-bit unsigned integer.	-	LongLong	
<b>SHORT</b>	A 16-bit integer. The range is -32768 through 32767 decimal.	Integer	Integer	
<b>TBYTE</b>	A <b>WCHAR</b> if <b>UNICODE</b> is defined, a <b>CHAR</b> otherwise.	?	?	
<b>UINT</b>	<a href="#">An unsigned INT. The range is 0 through 4294967295 decimal.</a>	Long	Long	Only positive values
<b>VOID</b>	Any type.	-	-	
<b>WCHAR</b>	<a href="#">A 16-bit Unicode character. For more information, see Character Sets Used By Fonts.</a>	?	?	

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<b>WORD</b>	A 16-bit unsigned integer. The range is 0 through 65535 decimal.	Long	Long	
<b>WPARAM</b>	A message parameter.	Long	LongPtr	