|  |  |
| --- | --- |
| **LP** | long pointer를 나타내는 약어로서 16bit시절의 윈도우의 유산입니다.과거 windows3.1까지의 시절에는 포인터는 모두 16bit였고, 24bit 메모리를 long pointer라는 것을 통해서 extended memory라는 이름으로 관리했었거든요..현재 LP(long pointer)는 .Net에서는 64bit pointer를, VC++6.0과 그 이전 버전에서는 32bit pointer를 나타냅니다. |
| **C** | constant, 즉 함수의 내부에서 인자값을 변경하지 말라는 뜻입니다. |
| **STR** | string자료가 될것이라는 뜻으로 내부적으로는 char형 배열에 null값 종료를 의미하고 있습니다.LPSTR = long pointer string = char \*LPCSTR = long pointer constant string = const char \*결과적으로는 맨 마지막과 같은 형이라는 뜻입니다. |
| **W** | wide char를 나타냅니다. 쉽게 말하면 Unicode 입니다.win9x에서 사용하던 multibyte와는 다릅니다. 물론 한글 조합형 코드도 아니고, unicode를 나타냅니다.LPWSTR = long pointer wide string = w\_char \*LPCWSTR = long pointer constant wide string = const w\_char \* |
| **T** | 마이크로소프트가 세계 각국에 제품을 판매하면서 각국의 언어에 맞추어 개발하는 것에 환멸을 느끼다가 드디어 windows를 unicode기반으로 개발하는 작업에 착수했습니다.그런데, 문제는 char는 1Byte이고 wide char는 2Byte이므로..포인터 연산을 많이하는 c, c++코드는 호환성에 치명적인 문제가 있었습니다.그래서 컴파일러가 precompile option을 보고, 환경에 맞게 동작하는 코드를 작성할 수 있는 새로운 변수 모양의 Macro를 선언하게 되었습니다.그것이 바로 TCHAR, t\_char라는 변수 입니다.t\_char은 자신의 운영체제가 multi-byte환경이면, char형으로,unicode환경이면, w\_char, wide char형으로 type casting됩니다. |

unsigned char UCHAR; 1byte

short SHORT; 2byte

unsigned short USHORT; 2byte

DWORD ULONG; 4byte

double DOUBLE; 8byte

unsigned \_\_int64 DWORDLONG; 8byte

DWORDLONG \*PDWORDLONG; 8byte

\_\_int64 LONGLONG; 8byte

unsigned \_\_int64 ULONGLONG; 8byte

LONGLONG \*PLONGLONG; 8byte

ULONGLONG \*PULONGLONG; 8byte

unsigned long DWORD; 4byte

int BOOL; 4byte

unsigned char BYTE; 1byte

unsigned short WORD; 2byte

float FLOAT; 4byte

FLOAT \*PFLOAT; 4byte

BOOL near \*PBOOL; 4byte

BOOL far \*LPBOOL; 4byte

BYTE near \*PBYTE; 4byte

BYTE far \*LPBYTE; 4byte

int near \*PINT; 4byte

int far \*LPINT; 4byte

WORD near \*PWORD; 4byte

WORD far \*LPWORD; 4byte

long far \*LPLONG; 4byte

DWORD near \*PDWORD; 4byte

DWORD far \*LPDWORD; 4byte

void far \*LPVOID; 4byte

CONST void far \*LPCVOID; 4byte

int INT; 4byte

unsigned int UINT; 4byte

unsigned int \*PUINT; 4byte

WCHAR FAR \* LPWSTR; 4byte

const WCHAR FAR \* LPCWSTR; 4byte

CHAR FAR \* LPSTR; 4byte

const CHAR FAR \* LPCSTR; 4byte

TCHAR FAR \* LPTSTR; 4byte

const TCHAR FAR \* LPCTSTR; 4byte

DWORD LCID; 4byte

const void FAR \* LPCVOID; 4byte

|  |  |
| --- | --- |
| **Value** | **Meaning** |
| **ATOM** | Atom. For more information, see Atoms. |
| **BOOL** | Boolean variable (should be TRUE or FALSE). |
| **BOOLEAN** | Boolean variable (should be TRUE or FALSE). |
| **BYTE** | Byte (8 bits). |
| **CALLBACK** | Calling convention for callback functions.= \_\_stdcall |
| **CHAR** | 8-bit Windows (ANSI) character. For more information, see Character Sets Used By Fonts. |
| **COLORREF** | Red, green, blue (RGB) color value (32 bits). See **COLORREF** for information on this type. |
| **CONST** | Variable whose value is to remain constant during execution. |
| **CRITICAL\_SECTION** | Critical-section object. For more information, see Critical Section Objects. |
| **DWORD** | 32-bit unsigned integer. |
| **DWORD\_PTR** | 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. ) |
| **DWORD32** | 32-bit unsigned integer. |
| **DWORD64** | 64-bit unsigned integer. |
| **FLOAT** | Floating-point variable. |
| **HACCEL** | Handle to an accelerator table. |
| **HANDLE** | Handle to an object. |
| **HBITMAP** | Handle to a bitmap. |
| **HBRUSH** | Handle to a brush. |
| **HCONV** | Handle to a dynamic data exchange (DDE) conversation. |
| **HCONVLIST** | Handle to a DDE conversation list. |
| **HCURSOR** | Handle to a cursor. |
| **HDC** | Handle to a device context (DC). |
| **HDDEDATA** | Handle to DDE data. |
| **HDESK** | Handle to a desktop. |
| **HDROP** | Handle to an internal drop structure. |
| **HDWP** | Handle to a deferred window position structure. |
| **HENHMETAFILE** | Handle to an enhanced metafile. |
| **HFILE** | Handle to a file opened by **OpenFile**, not **CreateFile**. |
| **HFONT** | Handle to a font. |
| **HGDIOBJ** | Handle to a GDI object. |
| **HGLOBAL** | Handle to a global memory block. |
| **HHOOK** | Handle to a hook. |
| **HICON** | Handle to an icon. |
| **HIMAGELIST** | Handle to an image list. |
| **HIMC** | Handle to input context. |
| **HINSTANCE** | Handle to an instance. |
| **HKEY** | Handle to a registry key. |
| **HKL** | Input locale identifier. |
| **HLOCAL** | Handle to a local memory block. |
| **HMENU** | Handle to a menu. |
| **HMETAFILE** | Handle to a metafile. |
| **HMODULE** | Handle to a module. The value is the base address of the module. |
| **HMONITOR** | Handle to a display monitor. |
| **HPALETTE** | Handle to a palette. |
| **HPEN** | Handle to a pen. |
| **HRGN** | Handle to a region. |
| **HRSRC** | Handle to a resource. |
| **HSZ** | Handle to a DDE string. |
| **HWINSTA** | Handle to a window station. |
| **HWND** | Handle to a window. |
| **INT** | 32-bit signed integer. |
| **INT\_PTR** | Signed integral type for pointer precision. Use when casting a pointer to an integer to perform pointer arithmetic. |
| **INT32** | 32-bit signed integer. |
| **INT64** | 64-bit signed integer. |
| **LANGID** | Language identifier. For more information, see Locales. |
| **LCID** | Locale identifier. For more information, see Locales. |
| **LCTYPE** | Locale information type. For a list, see Locale and Language Information. |
| **LONG** | 32-bit signed integer. |
| **LONG\_PTR** | Signed long type for pointer precision. Use when casting a pointer to a long to perform pointer arithmetic. |
| **LONG32** | 32-bit signed integer. |
| **LONG64** | 64-bit signed integer. |
| **LONGLONG** | 64-bit signed integer. |
| **LPARAM** | Message parameter. |
| **LPBOOL** | Pointer to a **BOOL**. |
| **LPBYTE** | Pointer to a **BYTE**. |
| **LPCOLORREF** | Pointer to a **COLORREF** value. |
| **LPCRITICAL\_SECTION** | Pointer to a **CRITICAL\_SECTION**. |
| **LPCSTR** | Pointer to a constant null-terminated string of 8-bit Windows (ANSI) characters. For more information, see Character Sets Used By Fonts. |
| **LPCTSTR** | An **LPCWSTR** if UNICODE is defined, an **LPCTSTR** otherwise. |
| **LPCVOID** | Pointer to a constant of any type. |
| **LPCWSTR** | Pointer to a constant null-terminated string of 16-bit Unicode characters. For more information, see Character Sets Used By Fonts. |
| **LPDWORD** | Pointer to a **DWORD**. |
| **LPHANDLE** | Pointer to a **HANDLE**. |
| **LPINT** | Pointer to an **INT**. |
| **LPLONG** | Pointer to a **LONG**. |
| **LPSTR** | Pointer to a null-terminated string of 8-bit Windows (ANSI) characters. For more information, see Character Sets Used By Fonts. |
| **LPTSTR** | An **LPWSTR** if UNICODE is defined, an **LPSTR** otherwise. |
| **LPVOID** | Pointer to any type. |
| **LPWORD** | Pointer to a **WORD**. |
| **LPWSTR** | Pointer to a null-terminated string of 16-bit Unicode characters. For more information, see Character Sets Used By Fonts. |
| **LRESULT** | Signed result of message processing. |
| **LUID** | Locally unique identifier. |
| **PBOOL** | Pointer to a **BOOL**. |
| **PBOOLEAN** | Pointer to a **BOOL**. |
| **PBYTE** | Pointer to a **BYTE**. |
| **PCHAR** | Pointer to a **CHAR**. |
| **PCRITICAL\_SECTION** | Pointer to a **CRITICAL\_SECTION**. |
| **PCSTR** | Pointer to a constant null-terminated string of 8-bit Windows (ANSI) characters. For more information, see Character Sets Used By Fonts. |
| **PCTSTR** | A **PCWSTR** if UNICODE is defined, a **PCSTR** otherwise. |
| **PCWCH** | Pointer to a constant **WCHAR**. |
| **PCWSTR** | Pointer to a constant null-terminated string of 16-bit Unicode characters. For more information, see Character Sets Used By Fonts. |
| **PDWORD** | Pointer to a **DWORD**. |
| **PFLOAT** | Pointer to a **FLOAT**. |
| **PHANDLE** | Pointer to a **HANDLE**. |
| **PHKEY** | Pointer to an **HKEY**. |
| **PINT** | Pointer to an **INT**. |
| **PLCID** | Pointer to an **LCID**. |
| **PLONG** | Pointer to a **LONG**. |
| **PLUID** | Pointer to a **LUID**. |
| **POINTER\_32** | 32-bit pointer. On a 32-bit system, this is a native pointer. On a 64-bit system, this is a truncated 64-bit pointer. |
| **POINTER\_64** | 64-bit pointer. On a 64-bit system, this is a native pointer. On a 32-bit system, this is a sign-extended 32-bit pointer. |
| **PSHORT** | Pointer to a **SHORT**. |
| **PSTR** | Pointer to a null-terminated string of 8-bit Windows (ANSI) characters. For more information, see Character Sets Used By Fonts. |
| **PTBYTE** | Pointer to a **TBYTE**. |
| **PTCHAR** | Pointer to a **TCHAR**. |
| **PTSTR** | **PWSTR** if UNICODE is defined, a **PSTR** otherwise. |
| **PTBYTE** | Pointer to a **TBYTE**. |
| **PTCHAR** | Pointer to a **TCHAR**. |
| **PTSTR** | A **PWSTR** if UNICODE is defined, a **PSTR** otherwise. |
| **PUCHAR** | Pointer to a **UCHAR**. |
| **PUINT** | Pointer to a **UINT**. |
| **PULONG** | Pointer to a **ULONG**. |
| **PUSHORT** | Pointer to a **USHORT**. |
| **PVOID** | Pointer to any type. |
| **PWCHAR** | Pointer to a **WCHAR**. |
| **PWORD** | Pointer to a **WORD**. |
| **PWSTR** | Pointer to a null-terminated string of 16-bit Unicode characters. For more information, see Character Sets Used By Fonts. |
| **REGSAM** | Security access mask for registry key. |
| **SC\_HANDLE** | Handle to a service control manager database. For more information, see SCM Handles. |
| **SC\_LOCK** | Handle to a service control manager database lock. For more information, see SCM Handles. |
| **SERVICE\_STATUS\_HANDLE** | Handle to a service status value. For more information, see SCM Handles. |
| **SHORT** | Short integer (16 bits). |
| **SIZE\_T** | The maximum number of bytes to which a pointer can point. Use for a count that must span the full range of a pointer. |
| SSIZE\_ T | Signed **SIZE\_T**. |
| **TBYTE** | A **WCHAR** if UNICODE is defined, a **CHAR** otherwise. |
| **TCHAR** | A **WCHAR** if UNICODE is defined, a **CHAR** otherwise. |
| **UCHAR** | Unsigned **CHAR**. |
| **UINT** | Unsigned **INT**. |
| **UINT\_PTR** | Unsigned **INT\_PTR**. |
| **UINT32** | Unsigned **INT32**. |
| **UINT64** | Unsigned **INT64**. |
| **ULONG** | Unsigned **LONG**.= DWORD |
| **ULONG\_PTR** | Unsigned **LONG\_PTR**. |
| **ULONG32** | Unsigned **LONG32**. |
| **ULONG64** | Unsigned **LONG64**. |
| **ULONGLONG** | 64-bit unsigned integer. |
| **UNSIGNED** | Unsigned attribute. |
| **USHORT** | Unsigned **SHORT**. |
| **VOID** | Any type. |
| **WCHAR** | 16-bit Unicode character. For more information, see Character Sets Used By Fonts. |
| **WINAPI** | Calling convention for system functions.= \_\_stdcall |
| **WORD** | 16-bit unsigned integer. |
| **WPARAM** | Message parameter. |

