/\*

\* Module: semaphore.h

\*

\* Purpose:

\* Semaphores aren't actually part of the PThreads standard.

\* They are defined by the POSIX Standard:

\*

\* POSIX 1003.1b-1993 (POSIX.1b)

\*

\* --------------------------------------------------------------------------

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\* Pthreads-win32 - POSIX Threads Library for Win32

\* Copyright(C) 1998 John E. Bossom

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\* in the file CONTRIBUTORS included with the source

\* code distribution. The list can also be seen at the

\* following World Wide Web location:

\* http://sources.redhat.com/pthreads-win32/contributors.html

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\*/

#if !defined( SEMAPHORE\_H )

#define SEMAPHORE\_H

#undef PTW32\_SEMAPHORE\_LEVEL

#if defined(\_POSIX\_SOURCE)

#define PTW32\_SEMAPHORE\_LEVEL 0

/\* Early POSIX \*/

#endif

#if defined(\_POSIX\_C\_SOURCE) && \_POSIX\_C\_SOURCE >= 199309

#undef PTW32\_SEMAPHORE\_LEVEL

#define PTW32\_SEMAPHORE\_LEVEL 1

/\* Include 1b, 1c and 1d \*/

#endif

#if defined(INCLUDE\_NP)

#undef PTW32\_SEMAPHORE\_LEVEL

#define PTW32\_SEMAPHORE\_LEVEL 2

/\* Include Non-Portable extensions \*/

#endif

#define PTW32\_SEMAPHORE\_LEVEL\_MAX 3

#if !defined(PTW32\_SEMAPHORE\_LEVEL)

#define PTW32\_SEMAPHORE\_LEVEL PTW32\_SEMAPHORE\_LEVEL\_MAX

/\* Include everything \*/

#endif

#if defined(\_\_GNUC\_\_) && ! defined (\_\_declspec)

# error Please upgrade your GNU compiler to one that supports \_\_declspec.

#endif

/\*

\* When building the library, you should define PTW32\_BUILD so that

\* the variables/functions are exported correctly. When using the library,

\* do NOT define PTW32\_BUILD, and then the variables/functions will

\* be imported correctly.

\*/

#if !defined(PTW32\_STATIC\_LIB)

# if defined(PTW32\_BUILD)

# define PTW32\_DLLPORT \_\_declspec (dllexport)

# else

# define PTW32\_DLLPORT \_\_declspec (dllimport)

# endif

#else

# define PTW32\_DLLPORT

#endif

/\*

\* This is a duplicate of what is in the autoconf config.h,

\* which is only used when building the pthread-win32 libraries.

\*/

#if !defined(PTW32\_CONFIG\_H)

# if defined(WINCE)

# define NEED\_ERRNO

# define NEED\_SEM

# endif

# if defined(\_\_MINGW64\_\_)

# define HAVE\_STRUCT\_TIMESPEC

# define HAVE\_MODE\_T

# elif defined(\_UWIN) || defined(\_\_MINGW32\_\_)

# define HAVE\_MODE\_T

# endif

#endif

/\*

\*

\*/

#if PTW32\_SEMAPHORE\_LEVEL >= PTW32\_SEMAPHORE\_LEVEL\_MAX

#if defined(NEED\_ERRNO)

#include "need\_errno.h"

#else

#include <errno.h>

#endif

#endif /\* PTW32\_SEMAPHORE\_LEVEL >= PTW32\_SEMAPHORE\_LEVEL\_MAX \*/

#define \_POSIX\_SEMAPHORES

#if defined(\_\_cplusplus)

extern "C"

{

#endif /\* \_\_cplusplus \*/

#if !defined(HAVE\_MODE\_T)

typedef unsigned int mode\_t;

#endif

typedef struct sem\_t\_ \* sem\_t;

PTW32\_DLLPORT int \_\_cdecl sem\_init (sem\_t \* sem,

int pshared,

unsigned int value);

PTW32\_DLLPORT int \_\_cdecl sem\_destroy (sem\_t \* sem);

PTW32\_DLLPORT int \_\_cdecl sem\_trywait (sem\_t \* sem);

PTW32\_DLLPORT int \_\_cdecl sem\_wait (sem\_t \* sem);

PTW32\_DLLPORT int \_\_cdecl sem\_timedwait (sem\_t \* sem,

const struct timespec \* abstime);

PTW32\_DLLPORT int \_\_cdecl sem\_post (sem\_t \* sem);

PTW32\_DLLPORT int \_\_cdecl sem\_post\_multiple (sem\_t \* sem,

int count);

PTW32\_DLLPORT int \_\_cdecl sem\_open (const char \* name,

int oflag,

mode\_t mode,

unsigned int value);

PTW32\_DLLPORT int \_\_cdecl sem\_close (sem\_t \* sem);

PTW32\_DLLPORT int \_\_cdecl sem\_unlink (const char \* name);

PTW32\_DLLPORT int \_\_cdecl sem\_getvalue (sem\_t \* sem,

int \* sval);

#if defined(\_\_cplusplus)

} /\* End of extern "C" \*/

#endif /\* \_\_cplusplus \*/

#undef PTW32\_SEMAPHORE\_LEVEL

#undef PTW32\_SEMAPHORE\_LEVEL\_MAX

#endif /\* !SEMAPHORE\_H \*/