

C Programming Language Keywords and Directives



Reserved Word	Category/Description	Standard						Notes
		K&R (1978)	K&R2 (1988)	ANSI/ISO C89/90	ANSI/ISO C99	ANSI/ISO C11	Microsoft Visual C (VC)	
#define	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#elif	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#else	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#endif	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#error	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#if	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#ifdef	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#ifndef	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#include	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#line	Preprocessor directive	✓	✓	✓	✓	✓	✓	
#pragma	Preprocessor directive		✓	✓	✓	✓	✓	Compiler-specific options.
#undef	Preprocessor directive	✓	✓	✓	✓	✓	✓	
auto	Storage-class specifier	✓	✓	✓	✓	✓	✓	
break	Control – jump	✓	✓	✓	✓	✓	✓	
case	Control – target	✓	✓	✓	✓	✓	✓	
char	Type specifier	✓	✓	✓	✓	✓	✓	
const	Type qualifier		✓	✓	✓	✓	✓	
continue	Control – jump	✓	✓	✓	✓	✓	✓	
default	Control – target	✓	✓	✓	✓	✓	✓	
do	Control – loop	✓	✓	✓	✓	✓	✓	
double	Type specifier	✓	✓	✓	✓	✓	✓	
else	Control – conditional	✓	✓	✓	✓	✓	✓	
entry	<i>obsolete - no longer a keyword</i>	✓						Not a keyword in modern compilers.
enum	Enumeration declaration		✓	✓	✓	✓	✓	
extern	Storage-class specifier	✓	✓	✓	✓	✓	✓	
float	Type specifier	✓	✓	✓	✓	✓	✓	
for	Control – loop	✓	✓	✓	✓	✓	✓	
goto	Control – jump	✓	✓	✓	✓	✓	✓	
if	Control – conditional	✓	✓	✓	✓	✓	✓	
inline	Function specifier				✓	✓		VC provides __inline specifier.
int	Type specifier	✓	✓	✓	✓	✓	✓	
long	Type specifier and modifier	✓	✓	✓	✓	✓	✓	
register	Storage-class specifier	✓	✓	✓	✓	✓	✓	
restrict	Type qualifier				✓	✓		VC++ provides the __restrict qualifier.
return	Control - jump	✓	✓	✓	✓	✓	✓	
short	Type specifier and modifier	✓	✓	✓	✓	✓	✓	
signed	Type specifier and modifier		✓	✓	✓	✓	✓	
sizeof	Data type size operator	✓	✓	✓	✓	✓	✓	
static	Storage-class specifier	✓	✓	✓	✓	✓	✓	
struct	Aggregate - structure	✓	✓	✓	✓	✓	✓	
switch	Control – conditional	✓	✓	✓	✓	✓	✓	
typedef	Storage-class specifier	✓	✓	✓	✓	✓	✓	
union	Aggregate - union	✓	✓	✓	✓	✓	✓	
unsigned	Type specifier and modifier	✓	✓	✓	✓	✓	✓	
void	Type specifier		✓	✓	✓	✓	✓	
volatile	Type qualifier		✓	✓	✓	✓	✓	
while	Control – loop	✓	✓	✓	✓	✓	✓	
_Alignas	Alignment specifier					✓		VC++ provides __alignof operator.
_Alignof	Data type alignment operator					✓		
_Atomic	Type qualifier/specifier					✓		
_Bool	Type specifier (bool macro)				✓	✓	✓	
_Complex	Type specifier				✓	✓		
_Generic	Generic selection					✓		
_Imaginary	Type specifier				✓	✓		
_Noreturn	Function specifier					✓		
_Static_assert	Compile-time assertion					✓		Use assert function for runtime assertion.
_Thread_local	Storage-class specifier					✓		Use __declspec(thread) in VC.
__asm	Inline assembly language						✓	
__based	Based pointers						✓	
__cdecl	Calling convention						✓	
__declspec	Storage-class attribute						✓	
__except	Structured Exception Handling						✓	
__fastcall	Calling convention						✓	
__finally	Structured Exception Handling						✓	
__inline	Function specifier						✓	
__int8	Size-specific integer type						✓	Use int8_t in <stdint.h>.
__int16	Size-specific integer type						✓	Use int16_t in <stdint.h>.
__int32	Size-specific integer type						✓	Use int32_t in <stdint.h>.
__int64	Size-specific integer type						✓	Use int64_t in <stdint.h>.
__leave	Structured Exception Handling						✓	
__stdcall	Calling convention						✓	
__try	Structured Exception Handling						✓	
__asm	Common Extension			✓	✓	✓		See C11 J.5.10. VC provides __asm.
__fortran	Common Extension			✓	✓	✓		See C11 J.5.9.