

- (6.5.12) *inclusive-OR-expression*:
exclusive-OR-expression
inclusive-OR-expression | *exclusive-OR-expression*
- (6.5.13) *logical-AND-expression*:
inclusive-OR-expression
logical-AND-expression && *inclusive-OR-expression*
- (6.5.14) *logical-OR-expression*:
logical-AND-expression
logical-OR-expression || *logical-AND-expression*
- (6.5.15) *conditional-expression*:
logical-OR-expression
logical-OR-expression ? *expression* : *conditional-expression*
- (6.5.16) *assignment-expression*:
conditional-expression
unary-expression assignment-operator assignment-expression
- (6.5.16) *assignment-operator*: one of
= * = / = % = + = - = < < = > > = & = ^ = | =
- (6.5.17) *expression*:
assignment-expression
expression , *assignment-expression*
- (6.6) *constant-expression*:
conditional-expression

A.2.2 Declarations

- (6.7) *declaration*:
declaration-specifiers init-declarator-list_{opt} ;
static_assert-declaration
- (6.7) *declaration-specifiers*:
storage-class-specifier declaration-specifiers_{opt}
type-specifier declaration-specifiers_{opt}
type-qualifier declaration-specifiers_{opt}
function-specifier declaration-specifiers_{opt}
alignment-specifier declaration-specifiers_{opt}
- (6.7) *init-declarator-list*:
init-declarator
init-declarator-list , *init-declarator*

(6.7) *init-declarator*:

declarator
declarator = *initializer*

(6.7.1) *storage-class-specifier*:

typedef
extern
static
_Thread_local
auto
register

(6.7.2) *type-specifier*:

void
char
short
int
long
float
double
signed
unsigned
_Bool
_Complex
atomic-type-specifier
struct-or-union-specifier
enum-specifier
typedef-name

(6.7.2.1) *struct-or-union-specifier*:

struct-or-union *identifier*_{opt} { *struct-declaration-list* }
struct-or-union *identifier*

(6.7.2.1) *struct-or-union*:

struct
union

(6.7.2.1) *struct-declaration-list*:

struct-declaration
struct-declaration-list *struct-declaration*

(6.7.2.1) *struct-declaration*:

specifier-qualifier-list *struct-declarator-list*_{opt} ;
static_assert-declaration

- (6.7.2.1) *specifier-qualifier-list*:
 type-specifier specifier-qualifier-list_{opt}
 type-qualifier specifier-qualifier-list_{opt}
- (6.7.2.1) *struct-declarator-list*:
 struct-declarator
 struct-declarator-list , struct-declarator
- (6.7.2.1) *struct-declarator*:
 declarator
 declarator_{opt} : constant-expression
- (6.7.2.2) *enum-specifier*:
 enum *identifier_{opt}* { *enumerator-list* }
 enum *identifier_{opt}* { *enumerator-list ,* }
 enum *identifier*
- (6.7.2.2) *enumerator-list*:
 enumerator
 enumerator-list , enumerator
- (6.7.2.2) *enumerator*:
 enumeration-constant
 enumeration-constant = constant-expression
- (6.7.2.4) *atomic-type-specifier*:
 _Atomic (*type-name*)
- (6.7.3) *type-qualifier*:
 const
 restrict
 volatile
 _Atomic
- (6.7.4) *function-specifier*:
 inline
 _Noreturn
- (6.7.5) *alignment-specifier*:
 _Alignas (*type-name*)
 _Alignas (*constant-expression*)
- (6.7.6) *declarator*:
 pointer_{opt} direct-declarator

(6.7.6) *direct-declarator*:

identifier
 (*declarator*)
direct-declarator [*type-qualifier-list*_{opt} *assignment-expression*_{opt}]
direct-declarator [**static** *type-qualifier-list*_{opt} *assignment-expression*]
direct-declarator [*type-qualifier-list* **static** *assignment-expression*]
direct-declarator [*type-qualifier-list*_{opt} *****]
direct-declarator (*parameter-type-list*)
direct-declarator (*identifier-list*_{opt})

(6.7.6) *pointer*:

***** *type-qualifier-list*_{opt}
***** *type-qualifier-list*_{opt} *pointer*

(6.7.6) *type-qualifier-list*:

type-qualifier
type-qualifier-list *type-qualifier*

(6.7.6) *parameter-type-list*:

parameter-list
parameter-list , ...

(6.7.6) *parameter-list*:

parameter-declaration
parameter-list , *parameter-declaration*

(6.7.6) *parameter-declaration*:

declaration-specifiers *declarator*
declaration-specifiers *abstract-declarator*_{opt}

(6.7.6) *identifier-list*:

identifier
identifier-list , *identifier*

(6.7.7) *type-name*:

specifier-qualifier-list *abstract-declarator*_{opt}

(6.7.7) *abstract-declarator*:

pointer
*pointer*_{opt} *direct-abstract-declarator*

(6.7.7) *direct-abstract-declarator*:

```
( abstract-declarator )
direct-abstract-declaratoropt [ type-qualifier-listopt
                               assignment-expressionopt ]
direct-abstract-declaratoropt [ static type-qualifier-listopt
                               assignment-expression ]
direct-abstract-declaratoropt [ type-qualifier-list static
                               assignment-expression ]
direct-abstract-declaratoropt [ * ]
direct-abstract-declaratoropt ( parameter-type-listopt )
```

(6.7.8) *typedef-name*:

identifier

(6.7.9) *initializer*:

```
assignment-expression
{ initializer-list }
{ initializer-list , }
```

(6.7.9) *initializer-list*:

```
designationopt initializer
initializer-list , designationopt initializer
```

(6.7.9) *designation*:

designator-list =

(6.7.9) *designator-list*:

```
designator
designator-list designator
```

(6.7.9) *designator*:

```
[ constant-expression ]
. identifier
```

(6.7.10) *static_assert-declaration*:

```
_Static_assert ( constant-expression , string-literal ) ;
```

A.2.3 Statements

(6.8) *statement*:

labeled-statement
compound-statement
expression-statement
selection-statement
iteration-statement
jump-statement

(6.8.1) *labeled-statement*:

identifier : *statement*
case *constant-expression* : *statement*
default : *statement*

(6.8.2) *compound-statement*:

{ *block-item-list*_{opt} }

(6.8.2) *block-item-list*:

block-item
block-item-list *block-item*

(6.8.2) *block-item*:

declaration
statement

(6.8.3) *expression-statement*:

*expression*_{opt} ;

(6.8.4) *selection-statement*:

if (*expression*) *statement*
if (*expression*) *statement* **else** *statement*
switch (*expression*) *statement*

(6.8.5) *iteration-statement*:

while (*expression*) *statement*
do *statement* **while** (*expression*) ;
for (*expression*_{opt} ; *expression*_{opt} ; *expression*_{opt}) *statement*
for (*declaration* *expression*_{opt} ; *expression*_{opt}) *statement*

(6.8.6) *jump-statement*:

goto *identifier* ;
continue ;
break ;
return *expression*_{opt} ;

A.2.4 External definitions

(6.9) *translation-unit*:

external-declaration
translation-unit external-declaration

(6.9) *external-declaration*:

function-definition
declaration

(6.9.1) *function-definition*:

declaration-specifiers declarator declaration-list_{opt} compound-statement

(6.9.1) *declaration-list*:

declaration
declaration-list declaration

A.3 Preprocessing directives

(6.10) *preprocessing-file*:

group_{opt}

(6.10) *group*:

group-part
group group-part

(6.10) *group-part*:

if-section
control-line
text-line
*non-directive*

(6.10) *if-section*:

if-group elif-groups_{opt} else-group_{opt} endif-line

(6.10) *if-group*:

if *constant-expression new-line group_{opt}*
ifdef *identifier new-line group_{opt}*
ifndef *identifier new-line group_{opt}*

(6.10) *elif-groups*:

elif-group
elif-groups elif-group

(6.10) *elif-group*:

elif *constant-expression new-line group_{opt}*