

1 External Definitions

translation-unit:

external-declaration

translation-unit external-declaration

external-declaration:

declaration

2 Declarations

declaration-list:

declaration

declaration-list declaration

declaration:

(storage-class-specifier identifier type-expression initializer_{opt})

(storage-class-specifier (identifier-list) (fn function-type-list) [:attr function-attribute]_{opt} register-declarator_{opt} block-item-list_{opt})

(def-or-decl struct-or-union-specifier struct-declaration-list_{opt})

(def enum-specifier enumerator-list)

(decltype identifier type-expression)

(decltype identifier struct-or-union struct-declaration-list_{opt})

(decltype identifier enum enumerator-list)

def-or-decl:

def

decl

storage-class-specifier: one of

def-or-decl

extern extern-def extern-decl static static-def

auto auto-def register register-def

function-attribute:

inline

register-declarator:

(register identifier-list)

struct-declaration-list:

struct-declaration

struct-declaration-list struct-declaration

struct-declaration:
declaration [*:bit expression*]_{opt}

enumerator-list:
enumerator
enumerator-list enumerator

enumerator:
enumeration-constant
(*enumeration-constant expression*)

enumeration-constant:
identifier

identifier-list:
identifier
identifier-list identifier

initializer:
expression
compound-initializer

compound-initializer:
(*array initializer-list*)
(*struct initializer-list*)

initializer-list:
initializer
initializer-list initializer

3 Type-expressions

type-expression:
type-specifier
(*type-qualifier-list type-expression*)
(*array type-expression array-subscription-list*_{opt})
(*ptr type-expression*)
(*fn function-type-list*)

function-type-list:
*type-expression-list va-arg*_{opt}

type-expression-list

type-expression

type-expression-list type-expression

type-specifier: one of

void

char signed-char unsigned-char

short signed-short unsigned-short

int signed-int unsigned-int

long signed-long unsigned-long

long-long signed-long-long unsigned-long-long

float double long-double

struct-or-union-specifier

enum-specifier

typedef-name

array-subscription-list:

expression-list

struct-or-union-specifier:

(struct-or-union identifier)

struct-or-union:

struct

union

enum-specifier:

(enum identifier)

type-qualifier-list:

type-qualifier

type-qualifier-list type-qualifier

type-qualifier:

const

restrict

volatile

typedef-name:

identifier

4 Statements

statement:

compound-statement

expression-statement

selection-statement

iteration-statement

jump-statement

labeled-statement

()

compound-statement:

(begin block-item-list_{opt})

block-item-list:

block-item

block-item-list block-item

block-item:

declaration

statement

labeled-statement:

(label identifier statement)

(case expression)

(default)

expression-statement:

expression

selection-statement:

(if expression statement statement_{opt})

(switch expression block-item-list_{opt})

iteration-statement:

(do-while expression block-item-list_{opt})

jump-statement:

(goto identifier)

(continue)

(break)

(return expression_{opt})

5 Expressions

expression:

identifier
constant
string-literal
(*expression-list*)
(**aref** *expression-list*)
(**fref** *expression identifier-list*)
(**inc** *expression*)
(**dec** *expression*)
(**++** *expression*)
(**--** *expression*)
(*unary-operator expression*)
(**sizeof** *expression*)
(**sizeof** *type-expression*)
(**cast** *type-expression expression*)
(*operator expression-list*)
(*comparator expression expression*)
(**if-exp** *expression expression expression*)
(*assignment-operator expression expression*)
(**exprs** *expression-list*)

expression-list:

expression
expression-list expression

operator: one of

***** **/** **%** **+** **-** **<<** **>>**
bit-xor **bit-and** **bit-or** **and** **or**

comparator: one of

< **>** **<=** **>=** **==** **!=**

assignment-operator: one of

= ***=** **/=** **%=** **+=** **-=** **<<=** **>>=** **bit-and=** **bit-xor=** **bit-or=**

unary-operator: one of

ptr **mref** **bit-not** **not**