

## ■ Revised Summary of Syntax Changes — 29 September 1997

type\_definition ::=  
    ...  
    | derived\_type\_definition  
derived\_type\_definition ::=  
    [ **abstract** ] **new** parent\_subtype\_indication [ record\_extension\_part ]  
record\_type\_definition ::= [ [ **abstract** ] **tagged** ] [ **limited** ] record\_definition  
record\_definition ::=  
    **record**  
        element\_declaration  
        { element\_declaration }  
    **end record** [ record\_type\_simple\_name ]  
    | **null record**  
record\_extension\_part ::= **with** record\_definition  
■ abstract\_subprogram\_declaration ::= subprogram\_specification **is abstract** ;  
subprogram\_declaration ::= subprogram\_specification [ **is abstract** ] ;  
name ::=  
    ...  
    | type\_conversion  
type\_conversion ::=  
    type\_mark ( expression )  
    | type\_mark ( name )  
aggregate ::= record\_aggregate | extension\_aggregate | array\_aggregate  
record\_aggregate ::= ( record\_element\_association\_list )  
record\_element\_association\_list ::=  
    element\_association\_list  
    | **null record**  
extension\_aggregate ::= ( ancestor\_part **with** record\_element\_association\_list )  
ancestor\_part ::= expression | type\_mark  
array\_aggregate ::= ( element\_association\_list )  
element\_association\_list ::=  
    element\_association { , element\_association }  
entity\_declarative\_item ::=  
    ...  
    | package\_declaration  
    | package\_body\_declaration  
    | generic\_subprogram\_instantiation  
    | generic\_package\_instantiation

block\_declarative\_item ::=

...  
| package\_declaration  
| package\_body\_declaration  
| generic subprogram instantiation  
| generic package instantiation

process\_declarative\_item ::=

...  
| package\_declaration  
| package\_body\_declaration  
| generic subprogram instantiation  
| generic package instantiation

subprogram\_declarative\_item ::=

...  
| package\_declaration  
| package\_body\_declaration  
| generic subprogram instantiation  
| generic package instantiation

package\_declarative\_item ::=

...  
| package\_declaration  
| generic subprogram instantiation  
| generic package instantiation

package\_body\_declarative\_item ::=

...  
| package\_declaration  
| package\_body\_declaration  
| generic subprogram instantiation  
| generic package instantiation

primary\_unit ::=

...  
| generic package instantiation

package\_declaration ::=

**package** identifier **is**  
  [ *formal\_generic\_clause* ]  
  package\_declarative\_part  
  [ **private**  
    package\_private\_declarative\_part ]  
**end** [ **package** ] [ *package\_simple\_name* ] ;

package\_private\_declarative\_part ::= { package\_private\_declarative\_item }

package\_private\_declarative\_item ::=

subprogram\_declaration  
declarative\_item

- | type\_declaration
- | subtype\_declaration
- | constant\_declaration
- | *shared* variable\_declaration
- | file\_declaration
- | alias\_declaration
- | attribute\_declaration
- | attribute\_specification
- | disconnection\_specification
- | use\_clause
- | group\_template\_declaration
- | group\_declaration
- | package\_declaration
- | generic subprogram instantiation
- | generic package instantiation

type\_declaration ::=

...  
 | private\_type\_declaration  
 | private\_type\_extension

private\_type\_declaration ::=

**type** identifier **is** [ [ **abstract** ] **tagged** ] [ **limited** ] [ **access** ] **private** ;

private\_extension\_declaration ::=

**type** identifier **is** [ **abstract** ] **new** ancestor\_subtype\_indication **with** [ **access** ] **private** ;

package\_declaration ::=

**package** identifier **is**  
 [ *formal\_generic\_clause* ]  
 package\_declarative\_part  
 [ **private**  
 package\_private\_declarative\_part ]  
**end** [ **package** ] [ *package\_simple\_name* ] ;

subprogram\_specification ::=

**procedure** designator  
 [ **generic** ( generic\_list ) ] [ ( formal\_parameter\_list ) ]  
 | [ **pure** | **impure** ] **function** designator  
 [ **generic** ( generic\_list ) ] [ ( formal\_parameter\_list ) ] **return** type\_mark

generic\_subprogram\_instantiation ::=

{subprogram\_kind} designator **is new** *generic\_subprogram\_name*  
 [ generic\_map\_aspect ] ;

generic\_package\_instantiation ::=

**package** identifier **is new** *generic\_package\_name*  
 [ generic\_map\_aspect ] ;

actual\_designator ::=

...

```

| type_mark
| subprogram_name
| package_instance_name
interface_declaration ::=
    . . .
    | interface_type_declaration
    | interface_subprogram_declaration
    | interface_package_declaration

interface_type_declaration ::=
    type identifier is interface_type_definition;

interface_type_definition ::=
    interface_private_type_definition
    | interface_derived_type_definition
    | interface_discrete_type_definition
    | interface_integer_type_definition
    | interface_physical_type_definition
    | interface_floating_type_definition
    | interface_array_type_definition
    | interface_access_type_definition
    | interface_file_type_definition

interface_private_type_definition ::= [ [ abstract ] tagged ] [ limited ] [ access ] private
interface_derived_type_definition ::= [ abstract ] new type_mark [ with [ access ] private ]
interface_discrete_type_definition ::= ( <> )
interface_integer_type_definition ::= range <>
interface_physical_type_definition ::= units <>
interface_floating_type_definition ::= range <> . <>
interface_array_type_definition ::= array_type_definition
interface_access_type_definition ::= access_type_definition
interface_file_type_definition ::= file_type_definition

interface_subprogram_declaration ::=
    subprogram_specification [ is subprogram_default ]

subprogram_default ::= name | <>

interface_package_declaration ::=
    package identifier is new generic_package_name interface_package_actual_part ;

interface_package_actual_part ::=
    generic map ( <> )
    | [ generic_map_aspect ]

```