

Subject: Specifications for the Modules TR  
From: Van Snyder

- 1 (1) It shall be possible for a module to have submodules.
- 2 (a) Submodules may have submodules.
- 3 (b) The only entities of submodules that are accessible by use association are  
4 the bodies of procedures that have a separate interface body, provided their  
5 interface bodies are declared in the scoping unit of their ancestor module and  
6 have public accessibility.
- 7 (c) A submodule depends on its parent program unit, and accesses it by host  
8 association.
- 9 (d) A submodule name is a global name, so as not to require deeper submodules  
10 to specify the entire genealogy of their parent program unit.
- 11 (e) Nonsaved submodule variables shall retain their definition status and values  
12 while the variables of the ancestor module retain their definition status and  
13 values.
- 14 (2) It shall be possible to specify an interface body for a module procedure in the  
15 *specification-part* of a module or submodule, and define its body in the *module-*  
16 *subprogram-part* of the same program unit or one of its descendant submodules.
- 17 (a) The interface body for a module procedure shall access its environment by  
18 host association.
- 19 (b) It shall be obvious, both to a human and processor, whether the definition of  
20 a procedure body is the definition of a new procedure (which might be a host  
21 override of an interface body having the same name), or an implementation of  
22 a procedure that has a separate interface body.
- 23 (c) If a procedure body is a definition of one that has a separate interface, it shall  
24 be optional whether the interface is redeclared.
- 25 (d) If the interface is redeclared in the procedure body it shall be identical to  
26 the interface declared by the interface body, except that the procedure body's  
27 declaration may specify that the procedure is pure even if the declaration in the  
28 interface body doesn't (but not vice-versa). It is desirable that the declaration  
29 of the procedure's interface in its interface body shall have the same syntax  
30 as the redeclaration of its interface in its procedure body.
- 31 (e) The body of a procedure that has a separately-declared interface shall not  
32 contain an ENTRY statement.