

Proposal for More Flexible Derived-type I/O Facility

Requirement:

For derived-type I/O, provide more flexibility in the interfaces of user-defined derived-type I/O routines for formatted I/O and in the syntax of the DT edit descriptor, in particular, to allow a variable number of integer values (e.g. field widths) instead of a maximum of 3.

Rationale:

Most derived types have several components of different types, each of which potentially requires a different formatting specification that typically includes one or more integer values (e.g. field widths). Furthermore, derived types are typically defined in a hierarchical fashion using other derived types to declare their components, adding to the number of variations and integer parameters desirable for derived-type I/O at higher levels. The current solution to derived type I/O restricts the user to a maximum of 3 integers in the DT edit descriptor. This severely hampers the utility of the facility and does not address the inherent complexity of the task.