

Subject: On Walt's observations about `eof`, `err`, `eor` arguments of DTIO procedures
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1 Introduction

Walt observed that the `IOSTAT` keyword is considered to be a more modern way to report exceptional events during input/output. It would also be simpler to describe the DTIO procedures, and probably simpler to write them, if they had a single `iostat` argument instead of the three `eof`, `err` and `eor` arguments.

2 Edits

Edits refer to 02-007. Page and line numbers are displayed in the margin. Absent other instructions, a page and line number or line number range implies all of the indicated text is to be replaced by associated text, while a page and line number followed by + (-) indicates that associated text is to be inserted after (before) the indicated line. Remarks are noted in the margin, or appear between [and] in the text.

12 [Editor: “`eof`, `err`, `eor`” \Rightarrow “`iostat`” 191:25

13 `INTEGER, INTENT(OUT) :: IOSTAT` 192:5

14 [Editor: “`eof`, `err`, `eor`” \Rightarrow “`iostat`” 192:13

15 `INTEGER, INTENT(OUT) :: IOSTAT` 192:17

16 [Editor: “`err`” \Rightarrow “`iostat`” 192:26

17 `INTEGER, INTENT(OUT) :: IOSTAT` 192:33

18 [Editor: “`err`” \Rightarrow “`iostat`” 192:41

19 `INTEGER, INTENT(OUT) :: IOSTAT` 192:45

20 The `iostat` argument is used to report whether an error, end-of-record or end-of-file condition 194:3-10
 21 (9.9) arises. If an error condition arises, the user-defined derived-type input/output procedure
 22 shall assign a positive value to the `iostat` argument. Otherwise, if an end-of-file condition
 23 arises, the user-defined derived-type input procedure shall assign the value of the named con-
 24 stant `IOSTAT_END` (13.8.3.2.1) to the `iostat` argument. Otherwise, if an end-of-record con-
 25 dition arises, the user-defined derived-type input procedure shall assign the value of the named
 26 constant `IOSTAT_EOR` (13.8.3.2.2) to `iostat`. Otherwise, the user-defined derived-type in-
 27 put/output procedure shall assign the value zero to the `iostat` argument.

28 If the user-defined derived-type input/output procedure returns a nonzero value for the `iomsg`
 29 argument, the

30 [Editor: “`err... true`” \Rightarrow “`iostat` argument of the user-defined derived-type input/output 194:13-14
 31 procedure has a nonzero value”.]