

## Fortran Specialist Group Standardization update June 2021

Significant progress has been made on Fortran 202X since OCT-2020. PL22.3 (J3) meetings 222, 223, and the ongoing joint PL22.3/WG5 meeting 21-30 JUN-2021.

A lot of discussion has happened around specifications and syntax of conditional expressions.

It is expected that the issue will be finalised during the ongoing WG5 meeting (21-157), though even at this stage alternative proposals are still being put forward (21-159), which demonstrates the interest in this feature.

After a very prolonged discussion, BOZ literal constants will not be allowed in F202X in output lists (21-101r1). Users will still have to convert a BOZ literal constant to a typed entity for output, e.g. INT(Z'123abc').

Many systems have a clock that is too fast to be effectively supported with default integers. Therefore, description of SYSTEM\_CLOCK has been updated to support more than one system clock (21-117r3).

In SEP-2020 WG5 issued letter ballot 1 on Fortran 2018 interpretations (N2176). The results were published in OCT-2020 (N2178). All interps passed, but one - F18/015 failed - the example of dealing with failed images was sent back for more work. John Reid has updated this example and it was passed by J3 at meeting #223 (21-105r1).

Based on N2178, David Muxworthy prepared the corrigendum for Fortran 2018, which was published in DEC-2020 (N2180).

The topic of generics has been judged too big to be included in F200X.

The WG5 plan is to bring generics into F202Y (the revision following F202X).

Nevertheless, given the importance and complexity of generics, the work on this feature has been progressing in parallel with F202X features.

The generics sub-group has put forward an ever-expanding wish list, with numerous examples from other languages and tentative proposals (21-144r4, 19-188).

The discussion is continuing, and is likely to take many more iterations until a consensus is reached.

WG5 continues to have responsibility for maintenance of

"Programming Language Fortran - Part 2: Varying Length Character Strings (ISO/IEC 1539-2)". WG5 intends to request withdrawal of this part, at the next SR, as it is obsolete (N2172).

One member of the BSI Fortran panel (Sven Hammarling) has resigned.

The panel now has 19 members.

Anton Shterenlikht, 28/6/2021