

**From:** /interop  
**Subject:** some glossary terms  
**To:** X3J3

In the text below, C9x is a placeholder for the formal ISO standard to come. I754 is a placeholder for the formal IEEE standard already referenced by our Standard. This paper is intended to resolve issue #92.

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| _Complex              | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. This is analogous to the Fortran default COMPLEX datatype.   |
| Bit field             | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. There is nothing analogous in Fortran.   |
| Companion processor   | A mechanism that references and defines compatible entities by a means other than Fortran; most likely a C processor. <ref 2.5>  |
| Compatible type       | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard.  |
| Double                | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. This is analogous to the Fortran DOUBLE PRECISION datatype.  |
| Float                 | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. This is analogous to the Fortran default REAL datatype.  |
| IEEE Exceptions       | A technical term defined in I754. Loosely speaking, these are "sticky flags" which may be set by the processor as a consequence of every floating point computation. An application can set or clear these flags directly. In some modes of operation, an automatic transfer of control can occur when an exception is raised. |
| Incomplete type       | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. There is nothing analogous in Fortran..  |
| INF                   | A technical term defined in I754, "Infinity". INF results when an I754 floating point operation yields a result which is outside the representable range. INF is a signed quantity. +INF results, for example, from 1.0/0.0; -INF results from -1.0/0.0.   |
| Int                   | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. This is analogous to the Fortran default INTEGER datatype.   |
| External linkage      | A technical term defined in C9x. See section 6.2.2 of that Standard. There is nothing analogous in Fortran.  |
| Flexible array member | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. There is nothing analogous in Fortran.   |
| Linked                | When a C function with external linkage has the same binding label as a Fortran procedure they are said to be linked. It is also possible for two Fortran entities be linked. <ref to wherever paper 118, currently 12.5.3 268 ADD J3 Note this may require additional work.   |

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| NaN            | Not A Number. A technical term defined by I754. A family of values which represent a result which is numerically meaningless without additional domain specific information, such as the result of 0.0/0.0. |
| Prototype      | A technical term defined in C9x. See section 6.7.5.3 of that Standard. This is analogous to the Fortran interface body.   |
| Rounding modes | A technical term defined in I754. A facility for control of floating point rounding. There are four defined modes in the I754 standard: nearest, to zero, up (towards +INF), and down (towards -INF)        |
| Struct         | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. This is analogous to the Fortran derived data type.   |
| Union          | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. There is nothing analogous in Fortran.  |
| Unsigned       | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. There is nothing analogous in Fortran.  |
| Void           | A technical term defined in C9x. See sections 6.2.5 and 6.7.2.1 of that Standard. There is nothing analogous in Fortran..   |